

Fig. 1

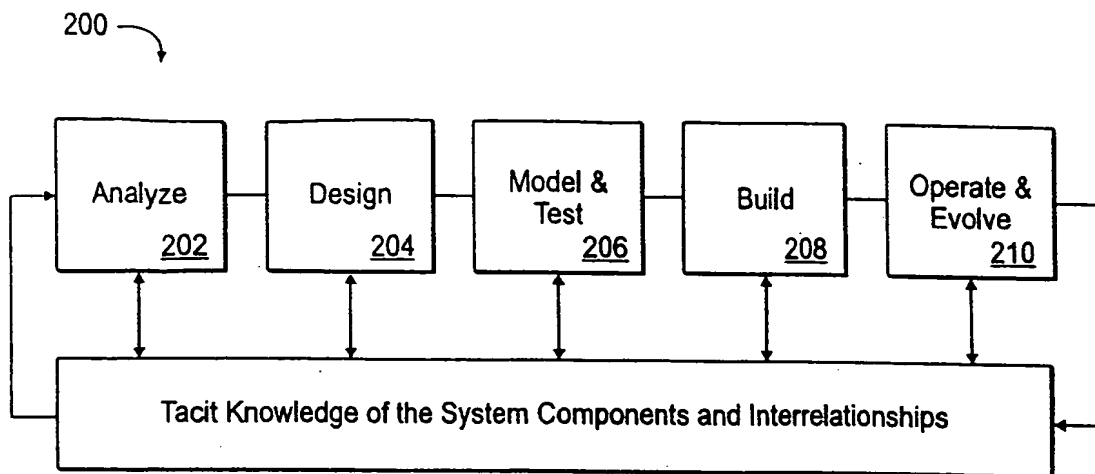


Fig. 2

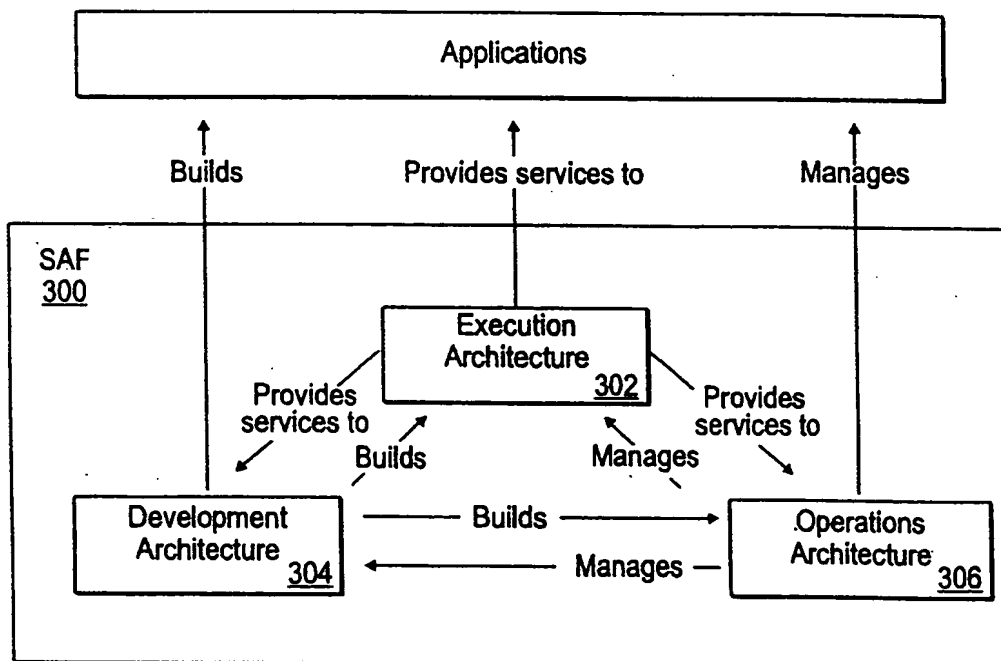


Fig. 3



400

Application Style 404

Technology Generations 402

	Host	Client/Server	Network Centric
Knowledge Management			
Decision Support			
Collaboration			
Integration			
Batch			
OLTP			
.			

Delivery Vehicle

Fig. 4

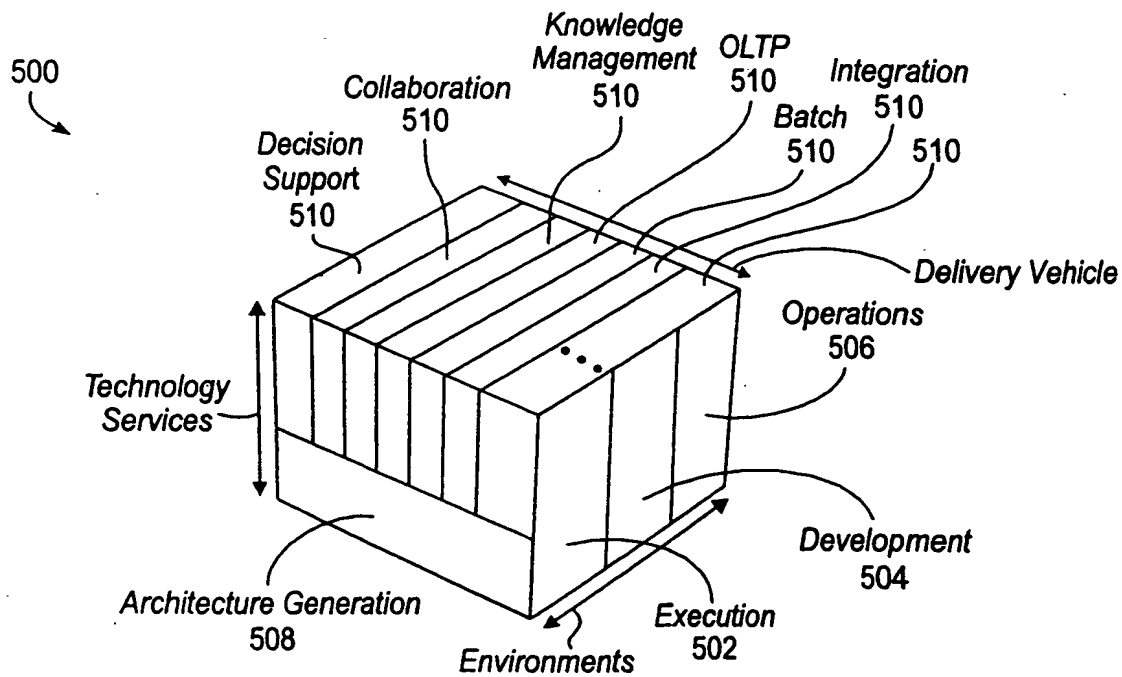


Fig. 5

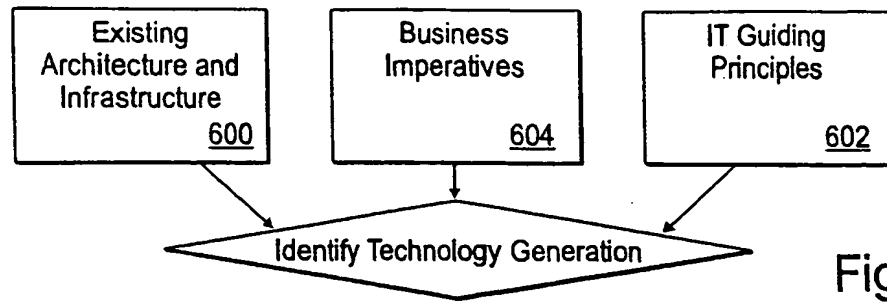


Fig. 6

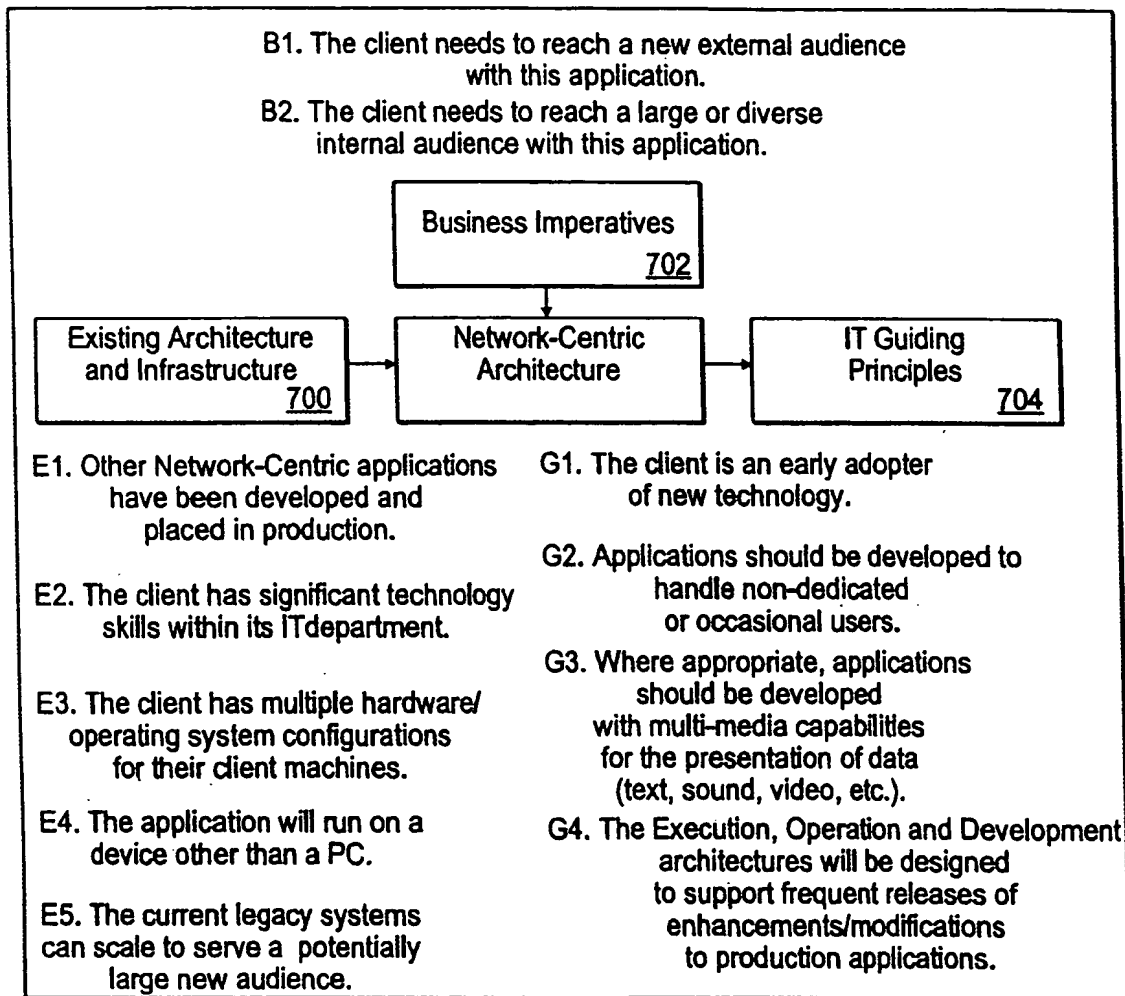


Fig. 7

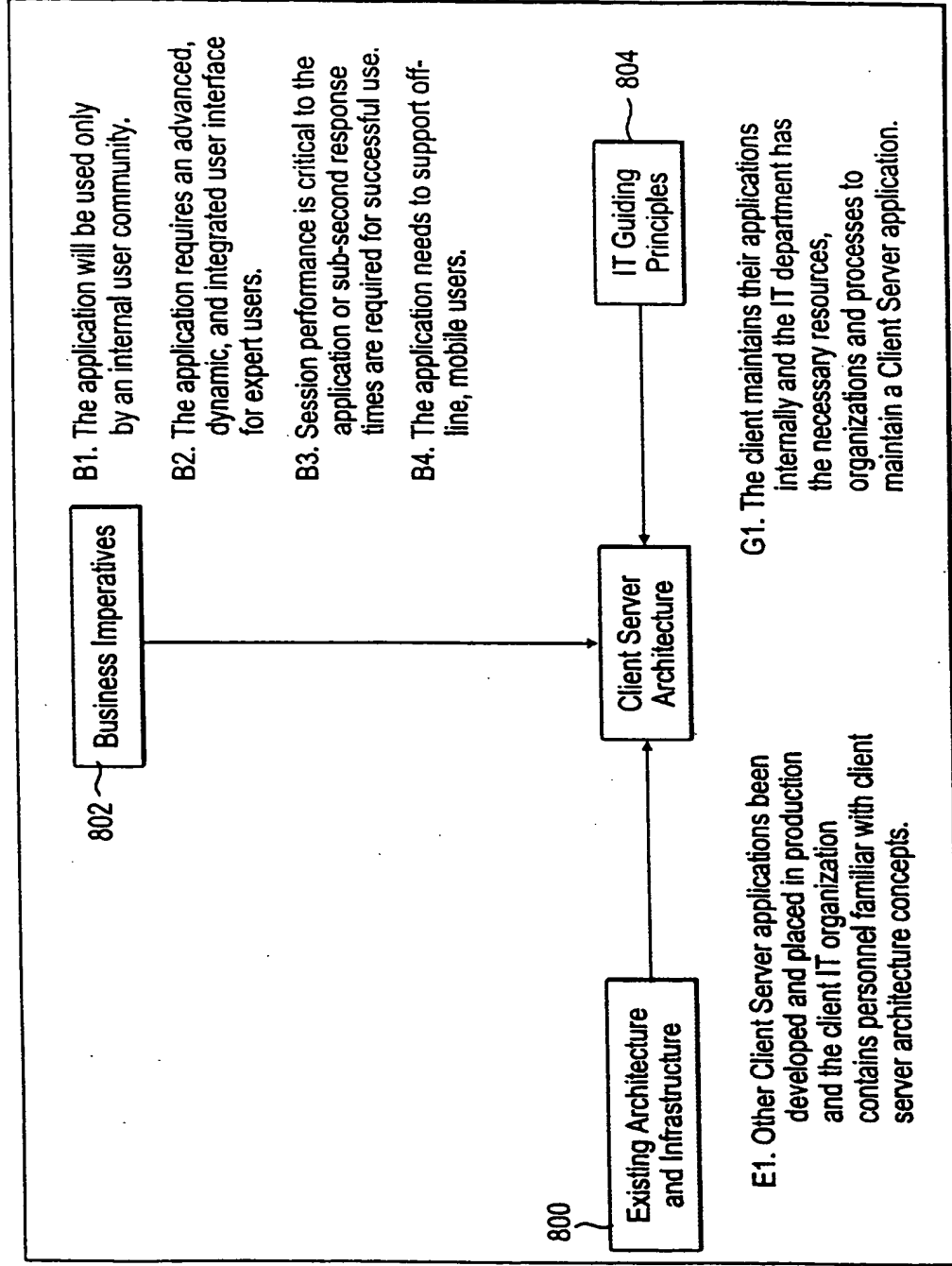


Fig. 8

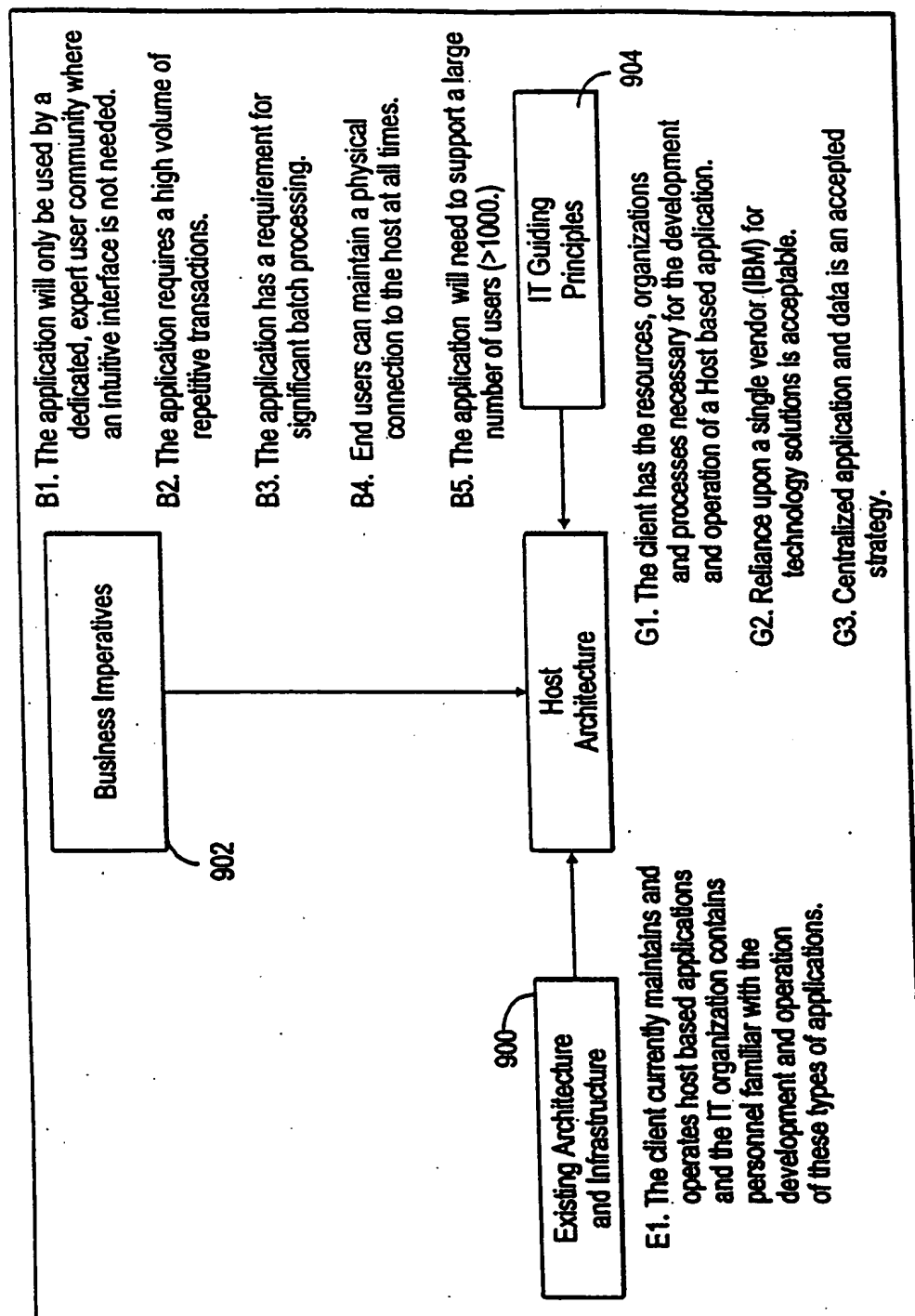


Fig. 9

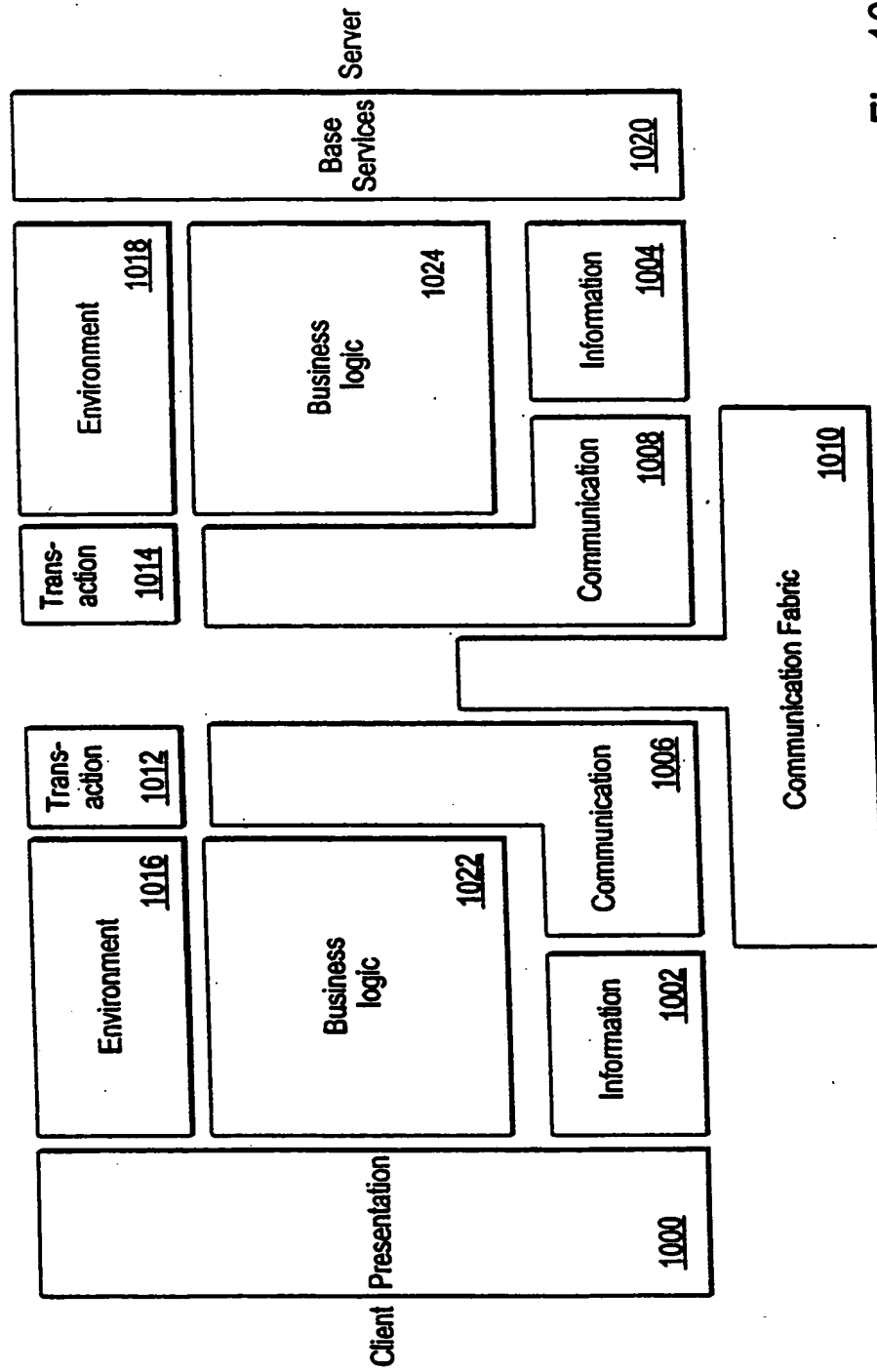


Fig. 10

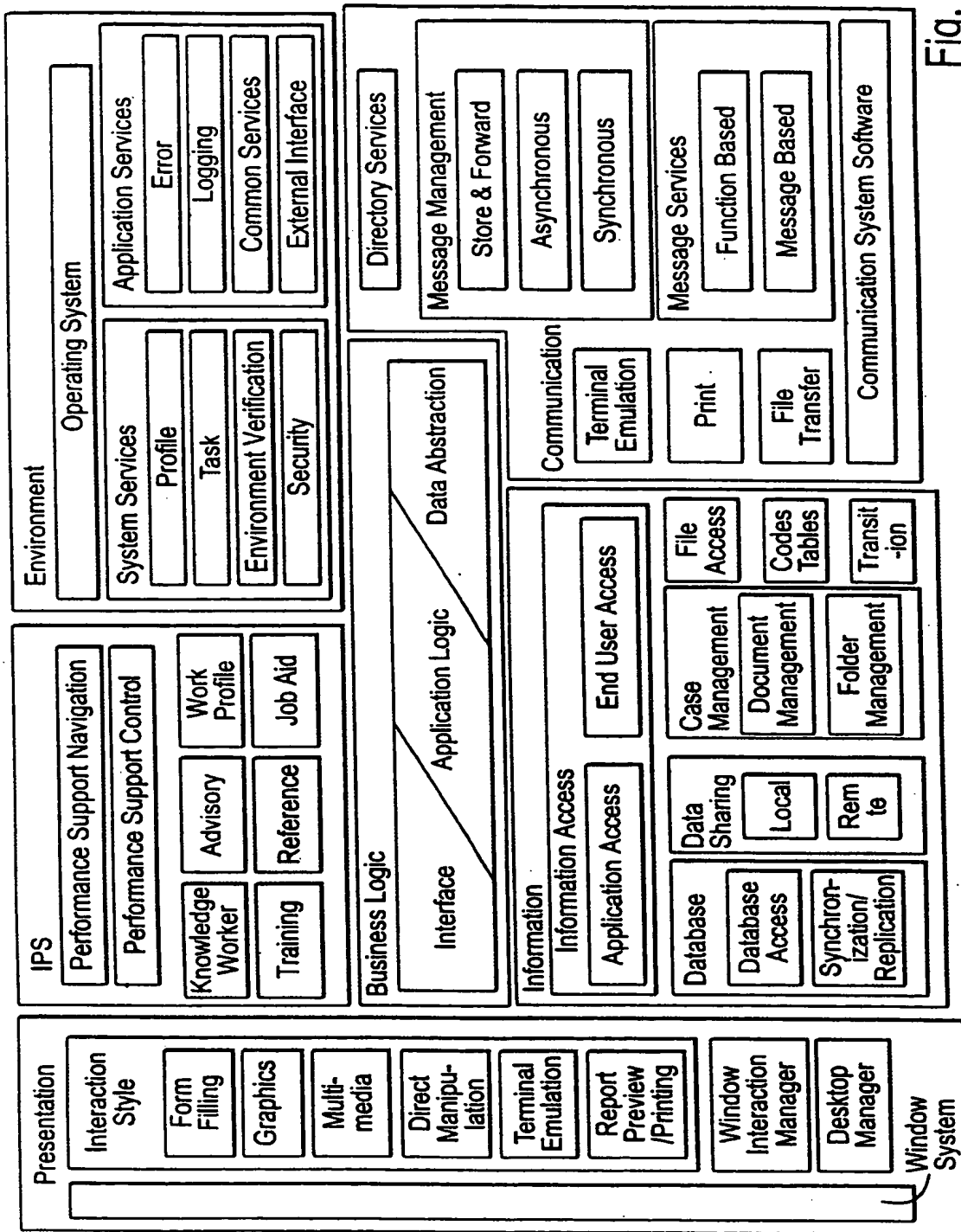
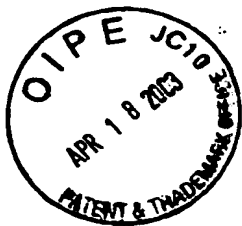


Fig. 11

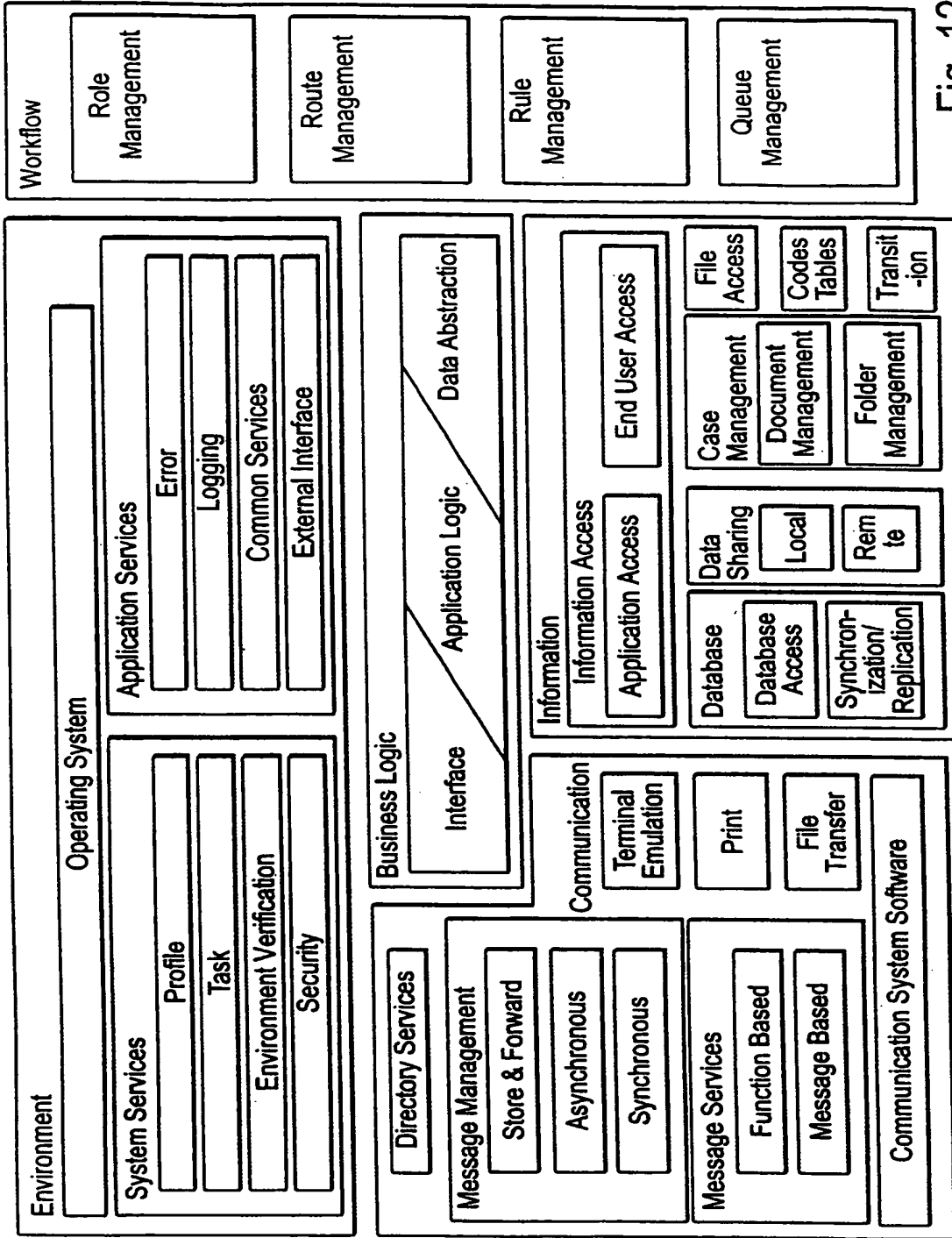


Fig. 12

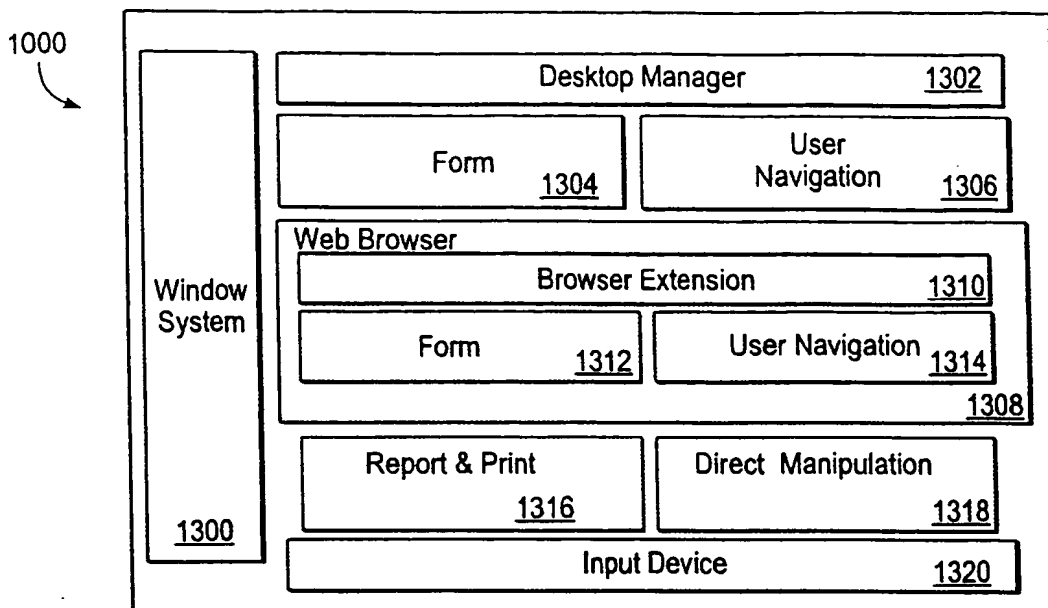
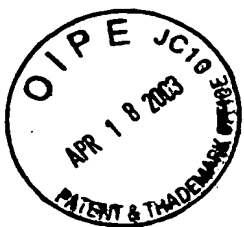


Fig. 13

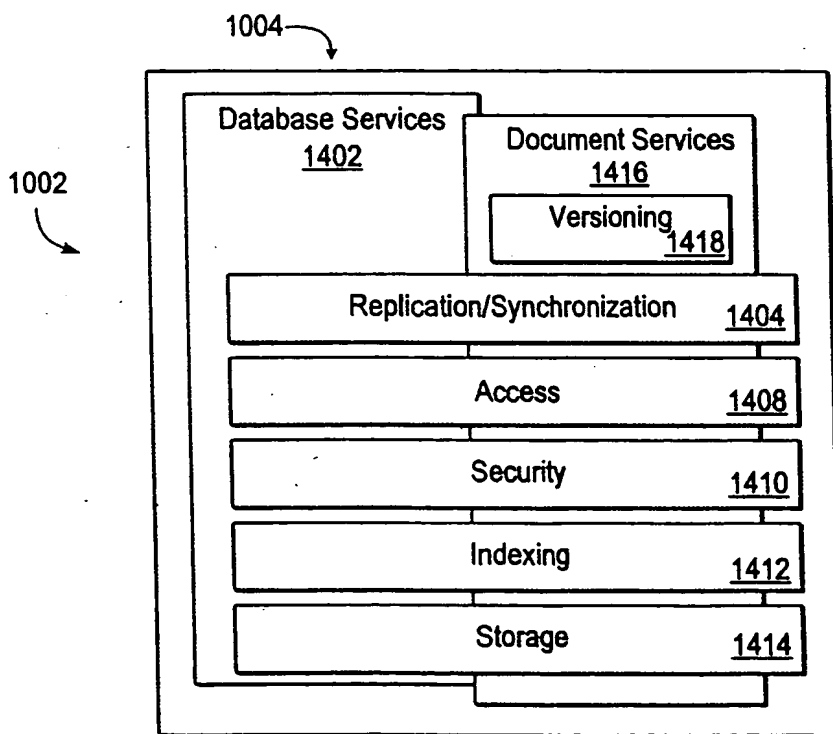


Fig. 14

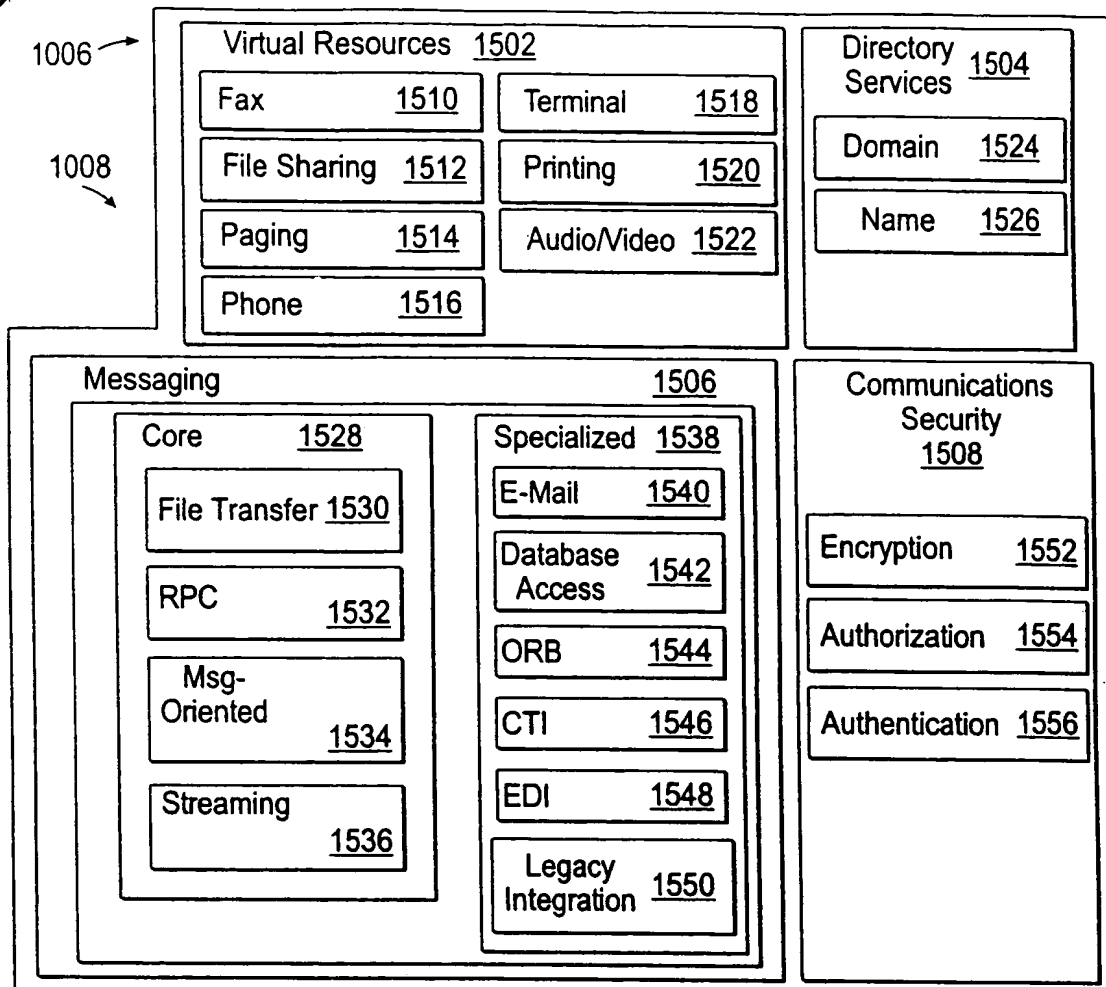


Fig. 15

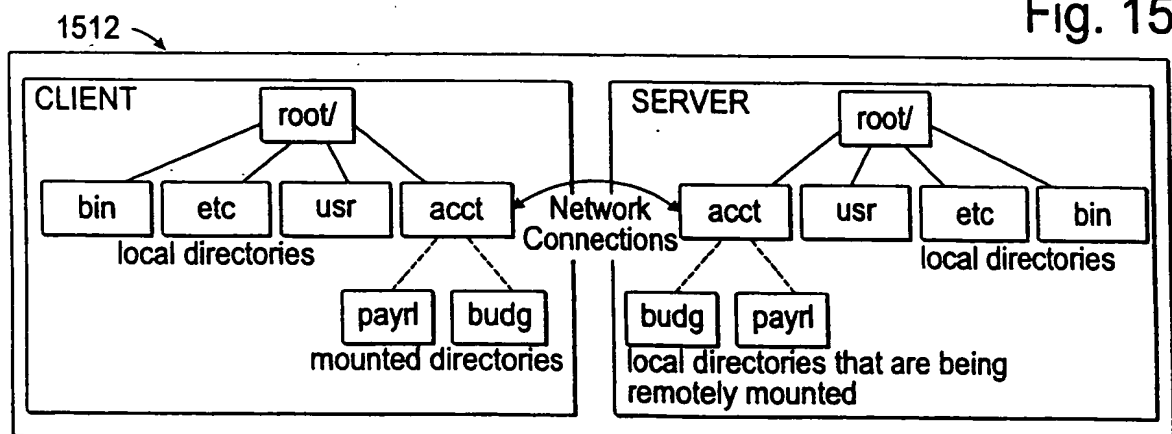


Fig. 16

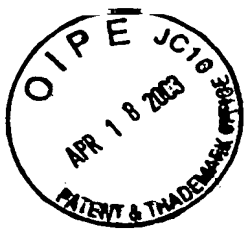


Fig. 17

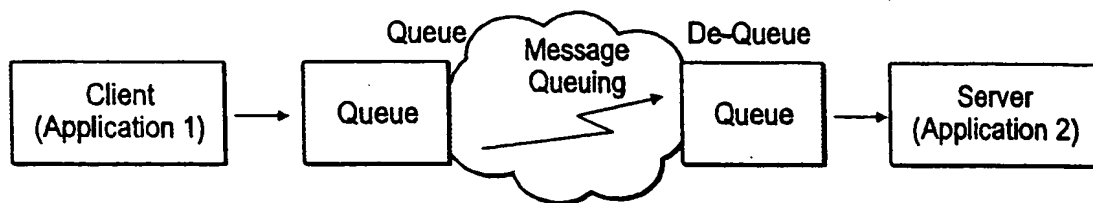


Fig. 18



Fig. 19

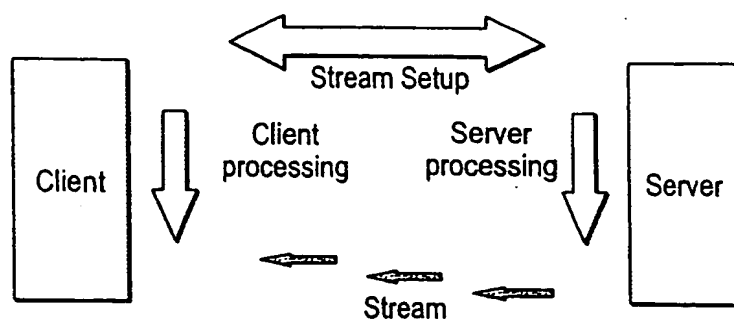


Fig. 20

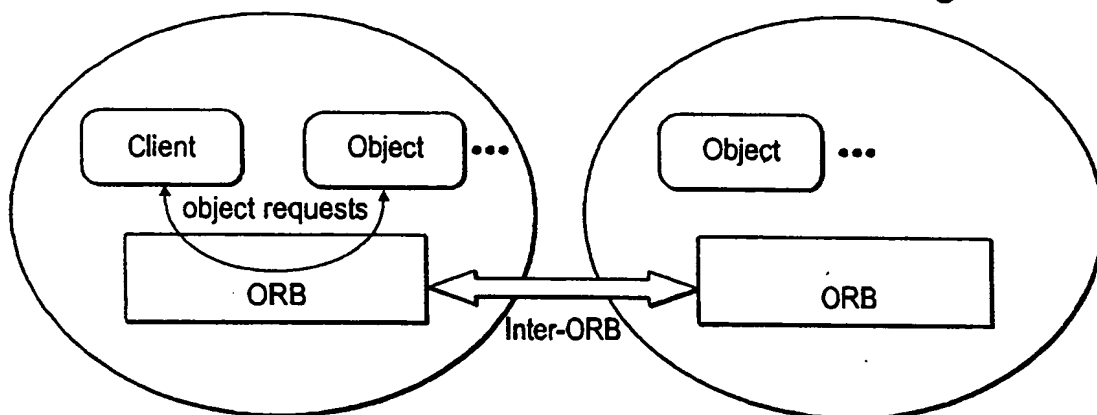


Fig. 21

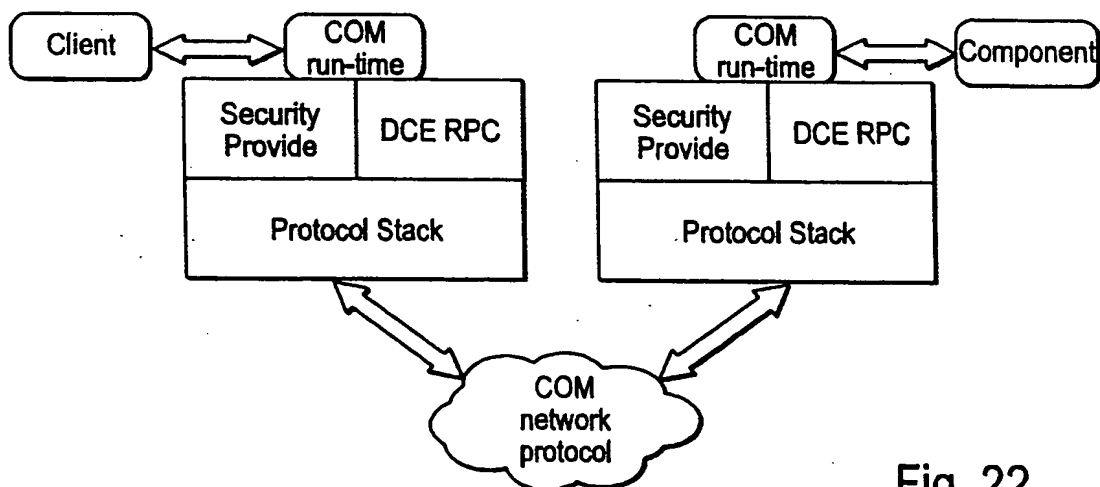


Fig. 22

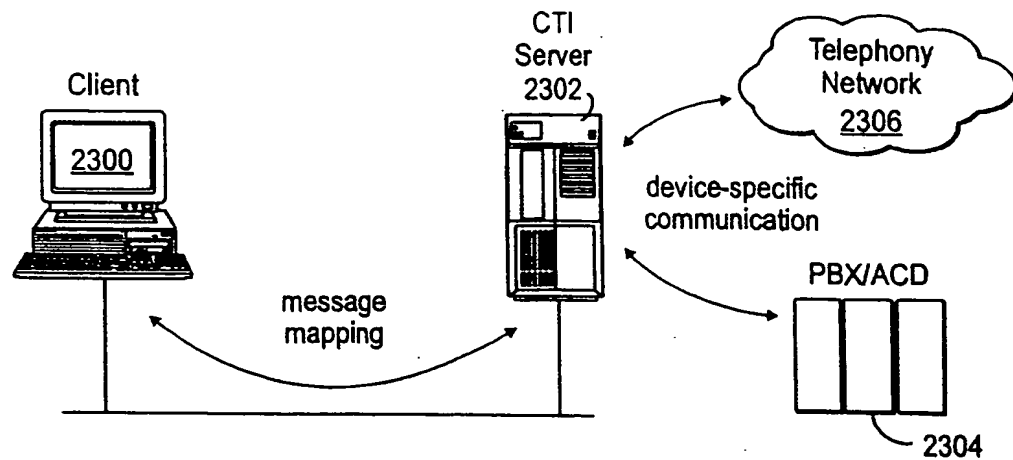
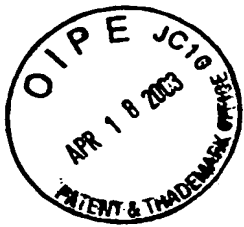


Fig. 23

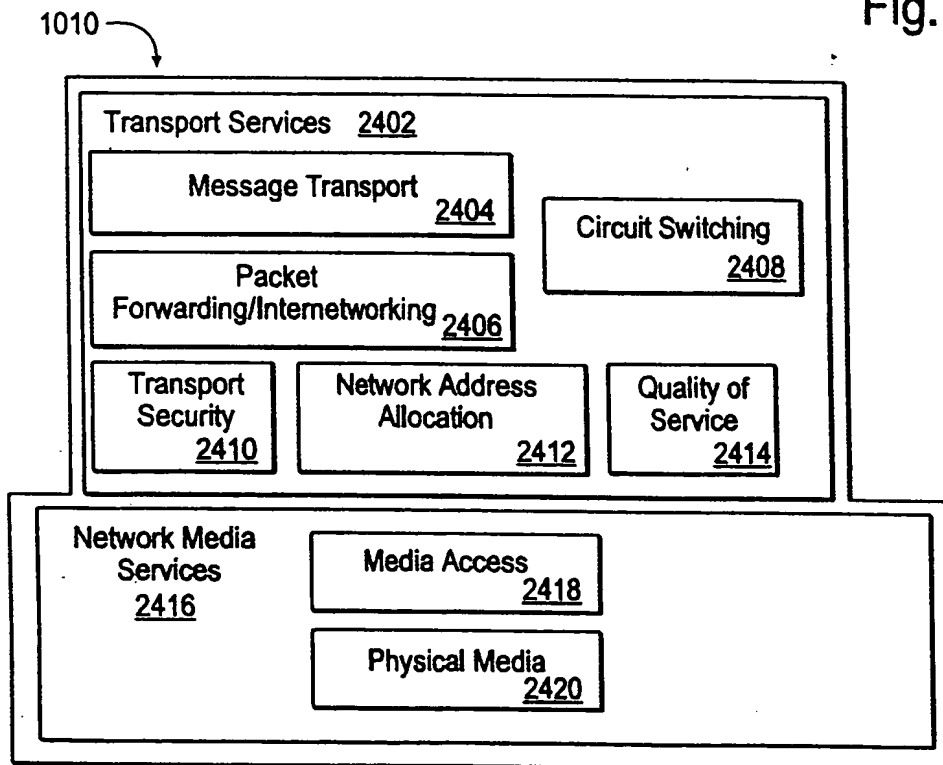


Fig. 24

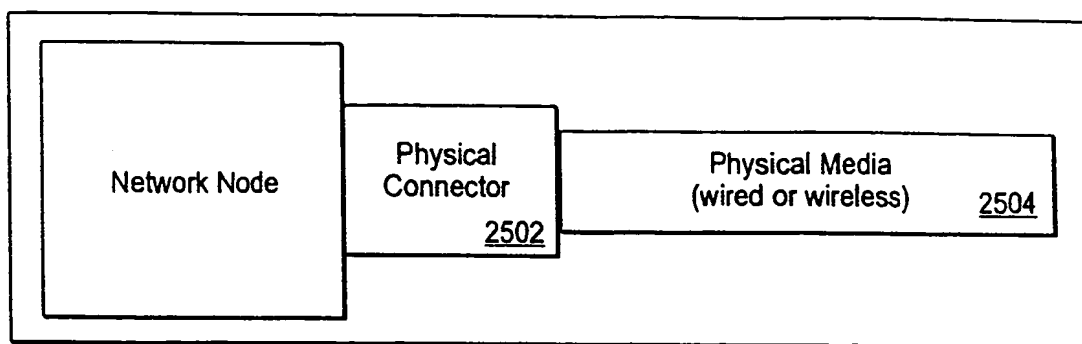
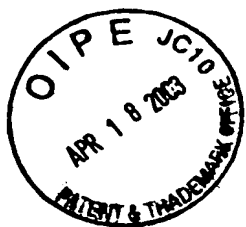


Fig. 25

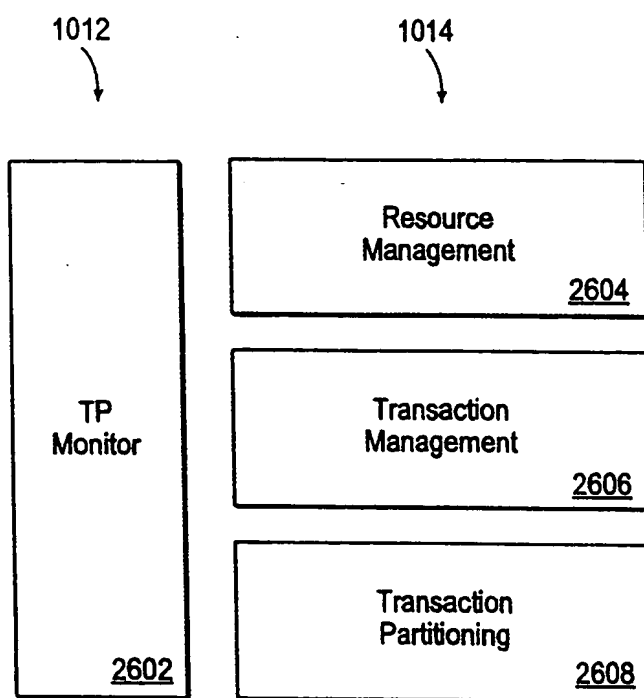


Fig. 26

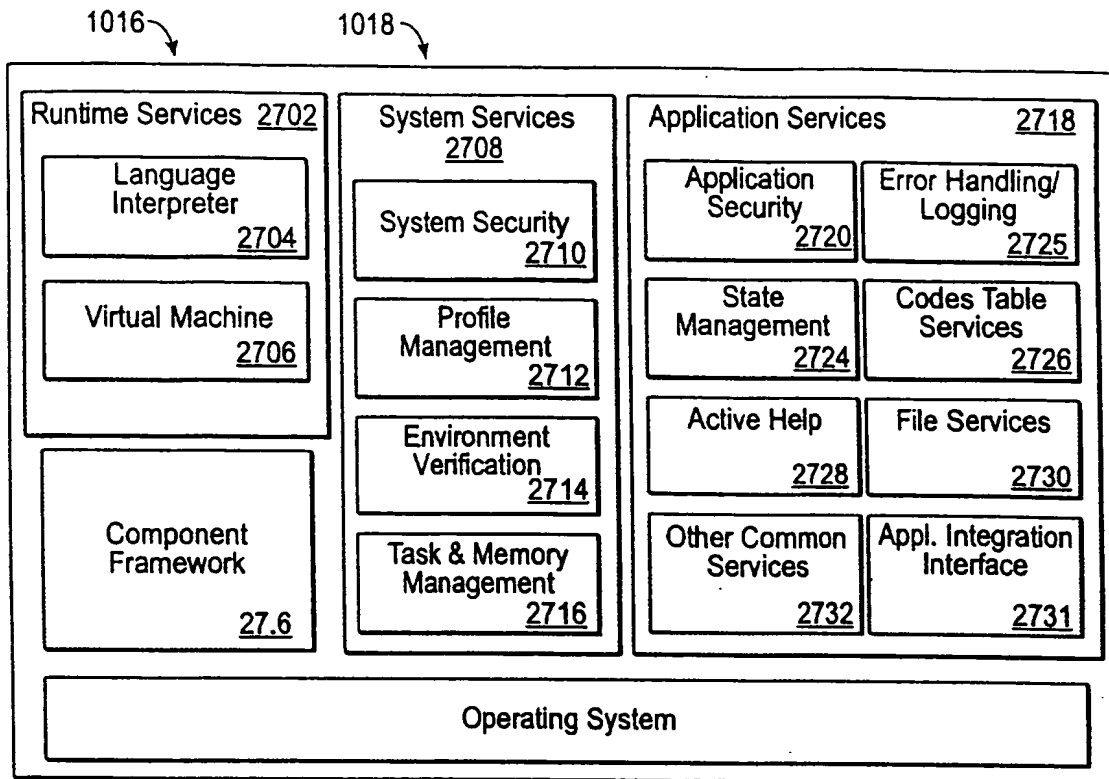


Fig. 27

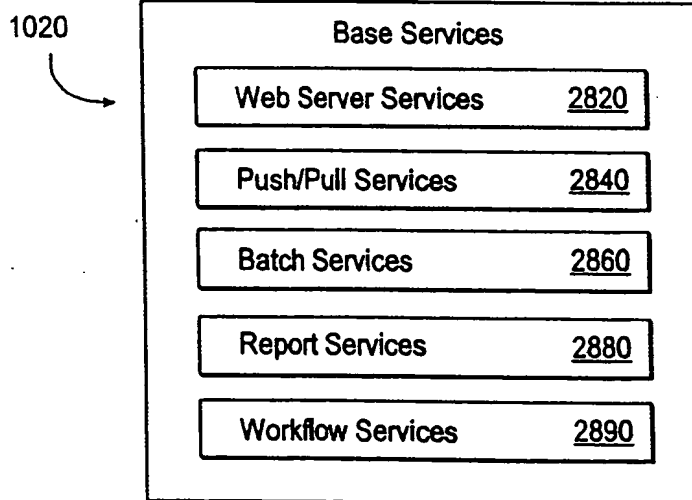


Fig. 28

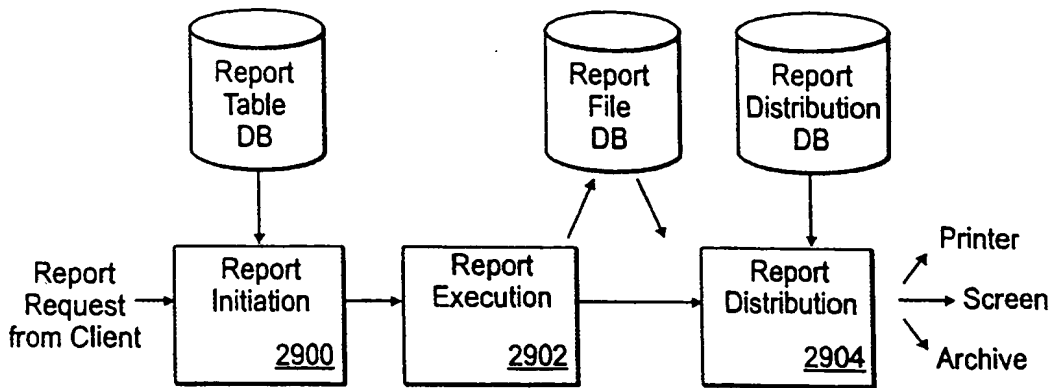
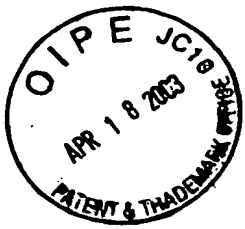


Fig. 29

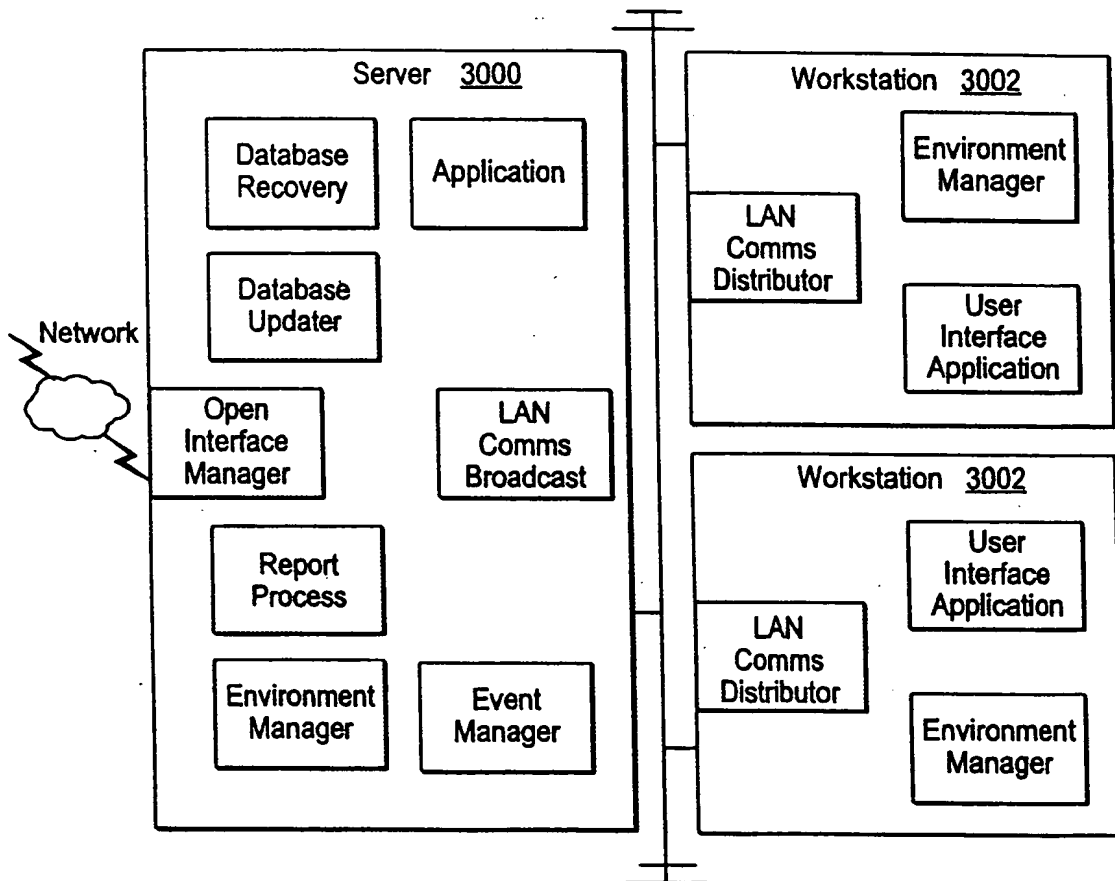


Fig. 30

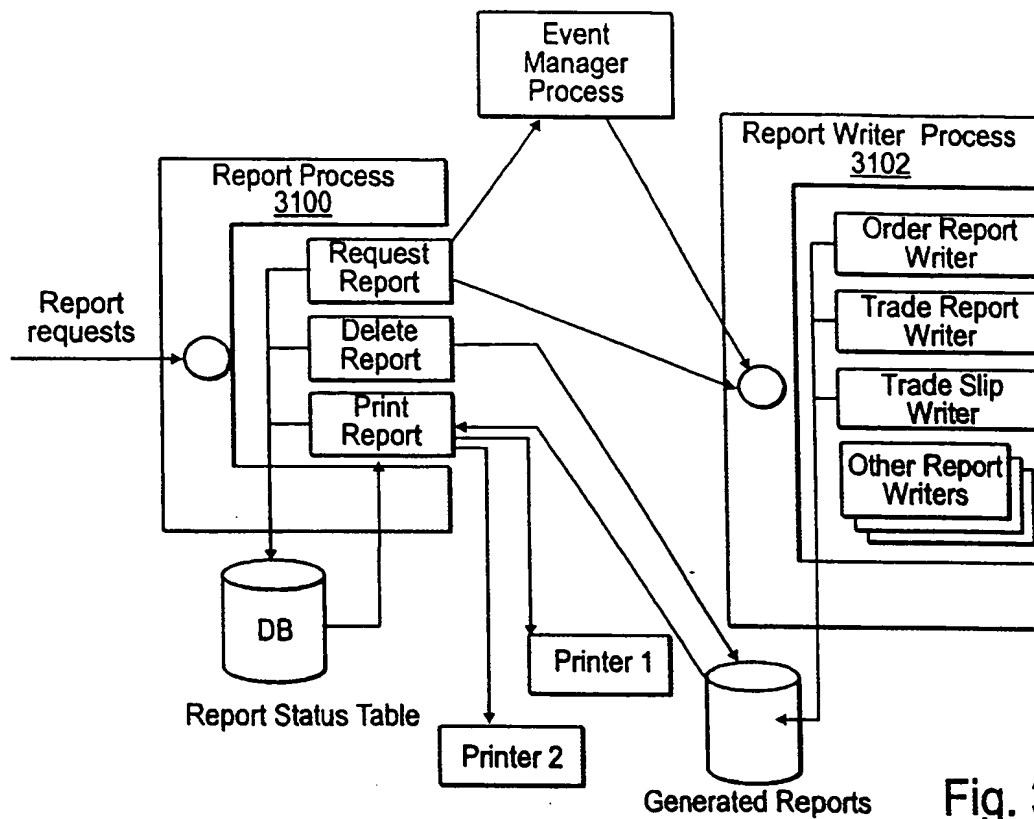
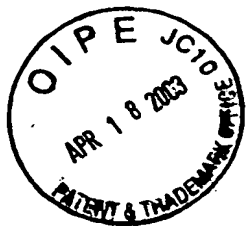


Fig. 31

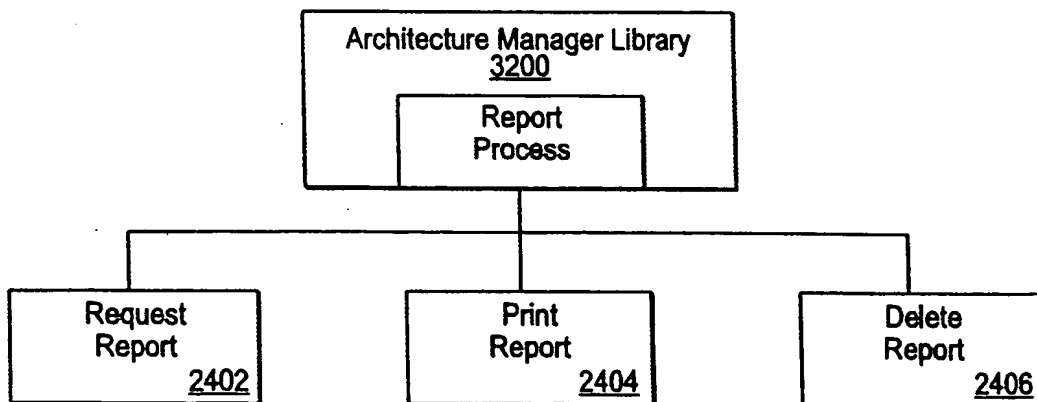
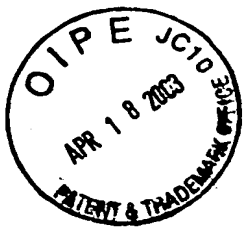


Fig. 32



1022, 1024

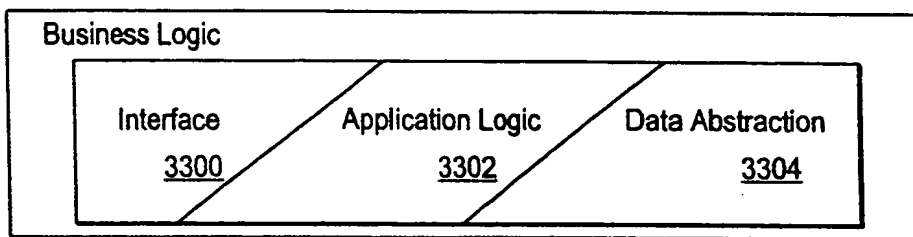
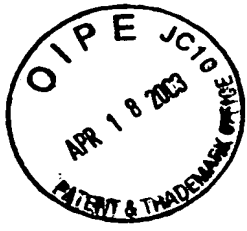


Fig. 33



Overall Themes

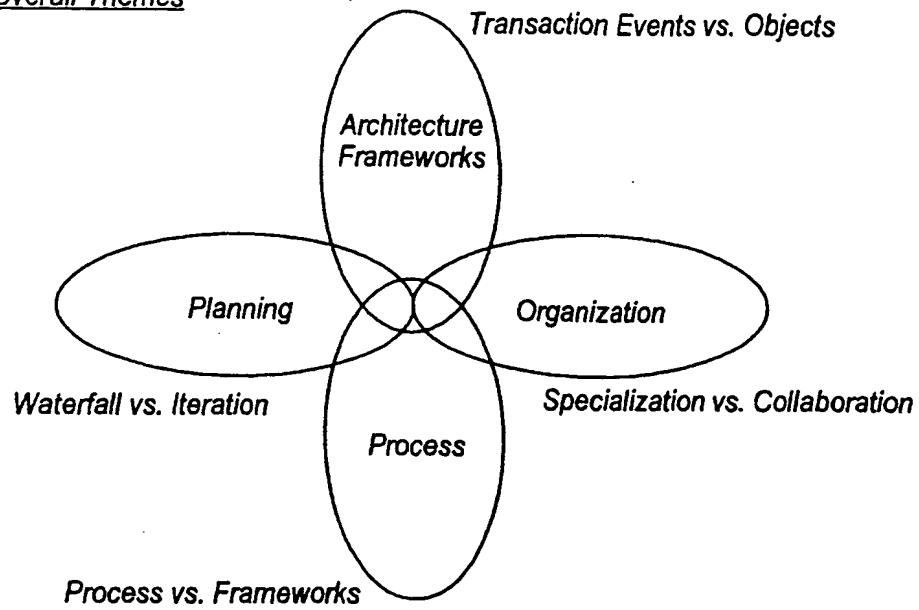


Fig. 34

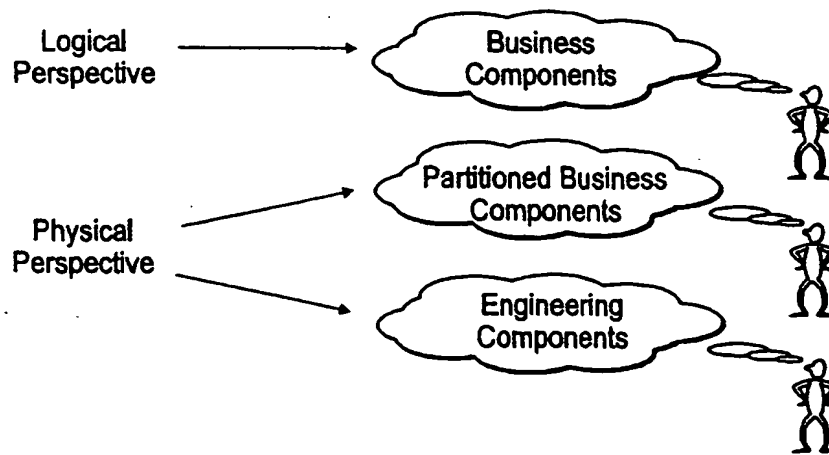


Fig. 35

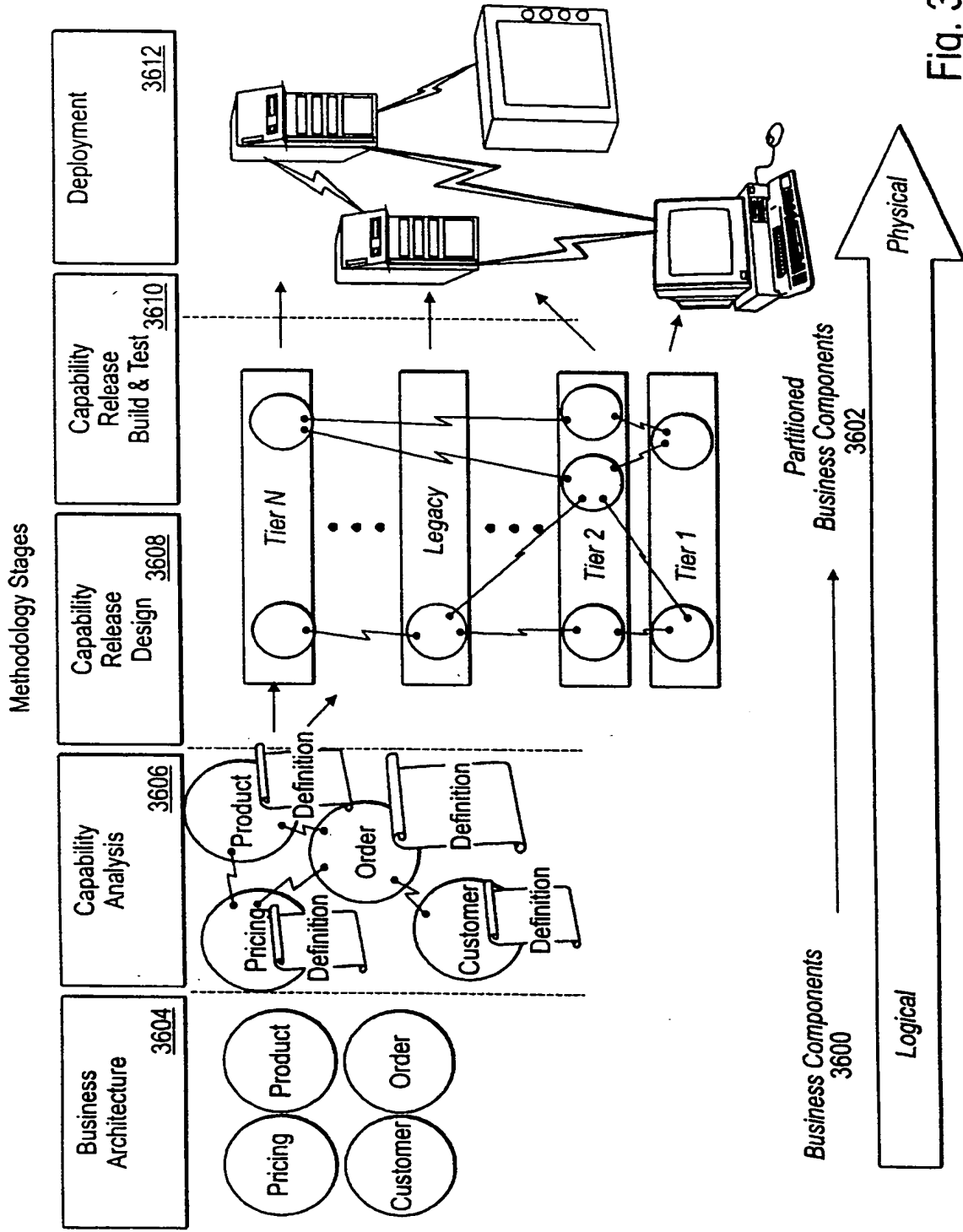


Fig. 36

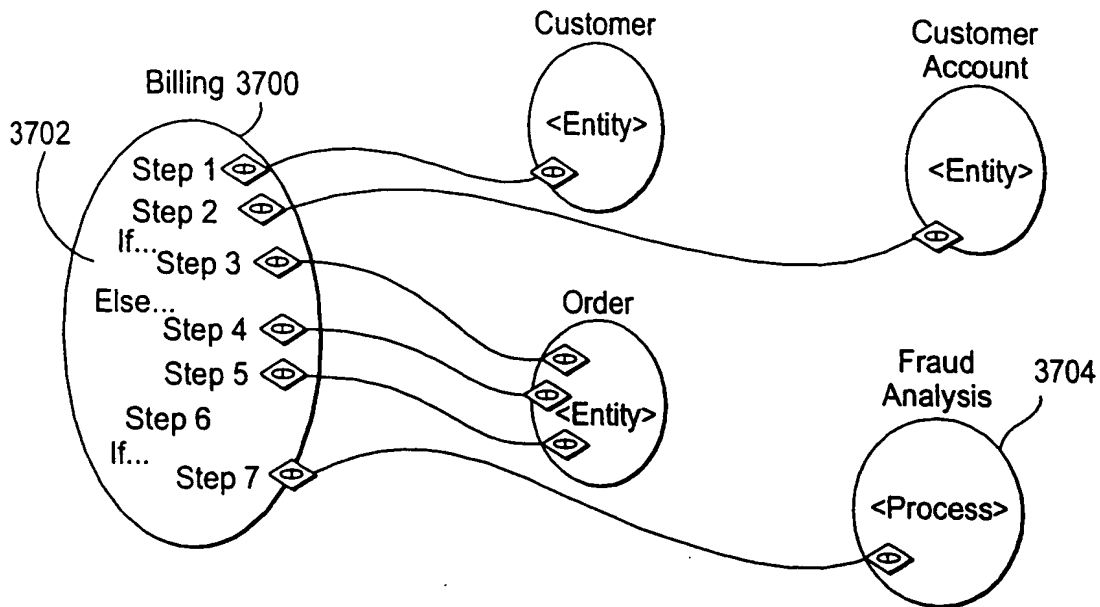
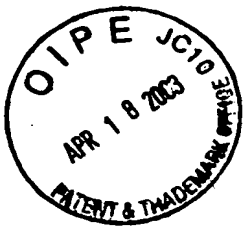


Fig. 37

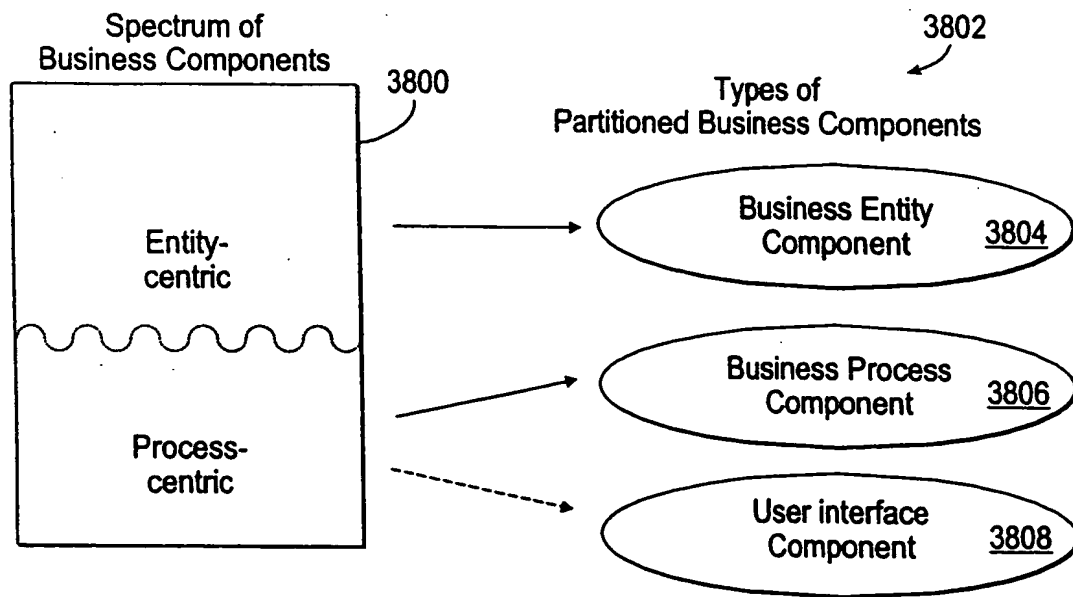


Fig. 38

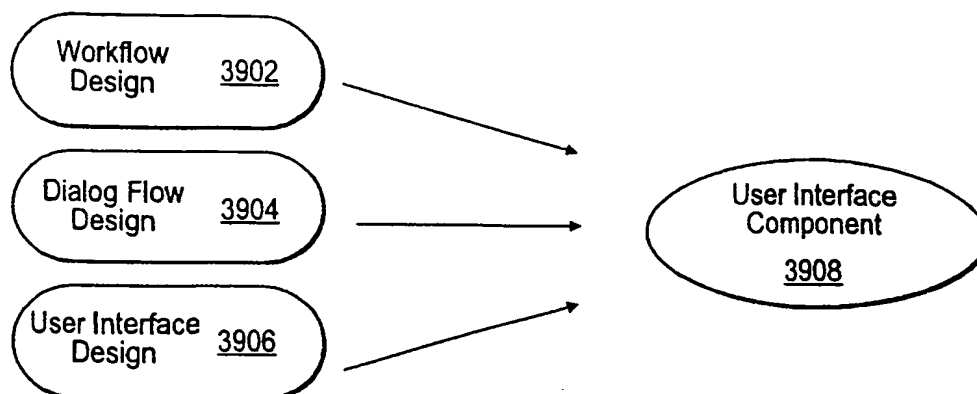


Fig. 39

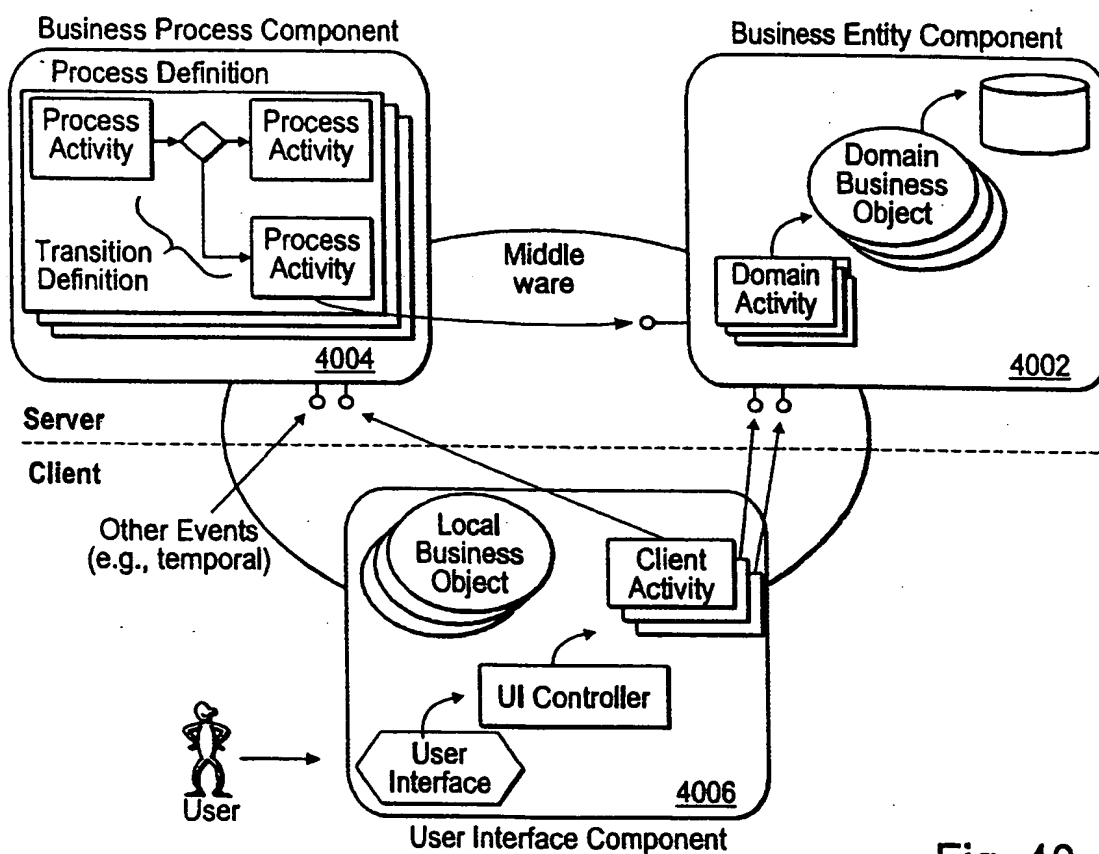


Fig. 40

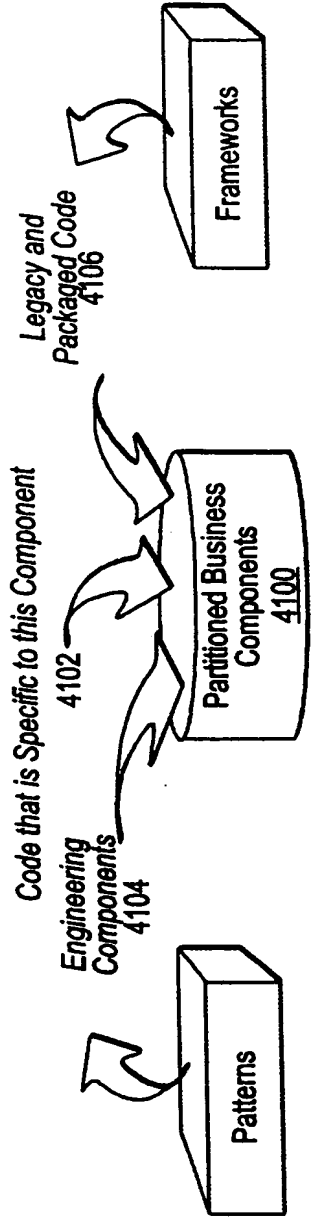
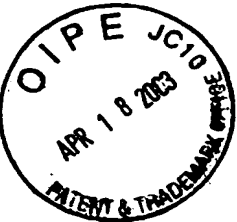


Fig. 41

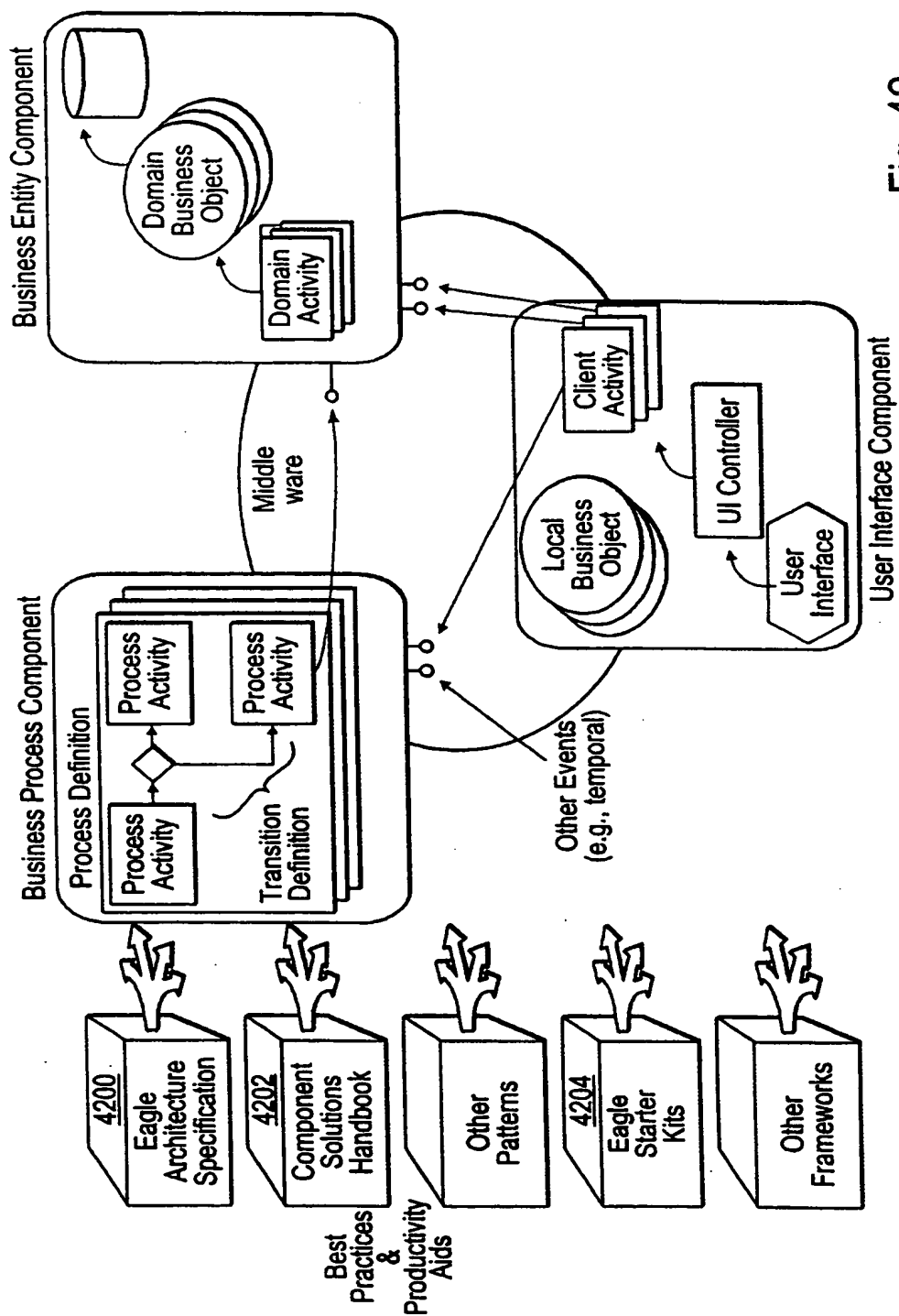


Fig. 42

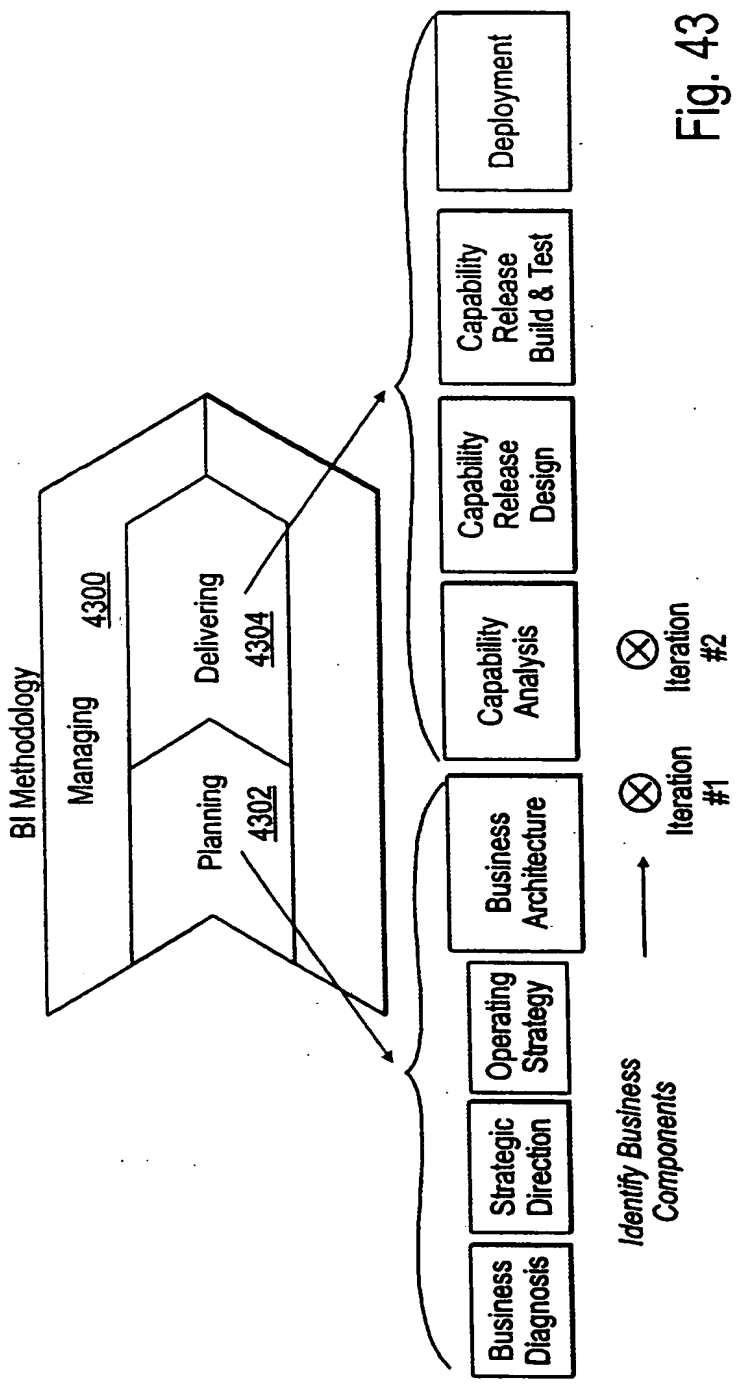


Fig. 43

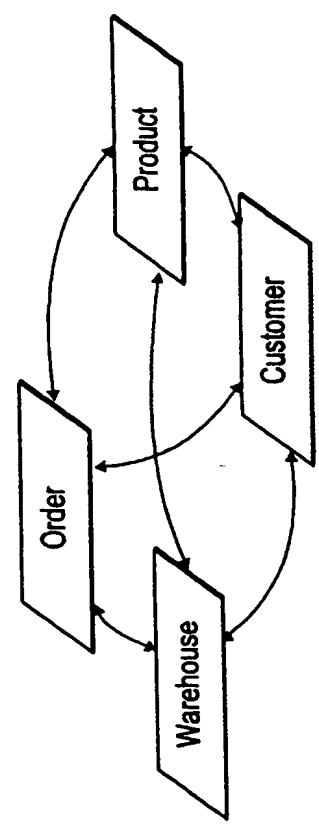


Fig. 44



Traditional Organization

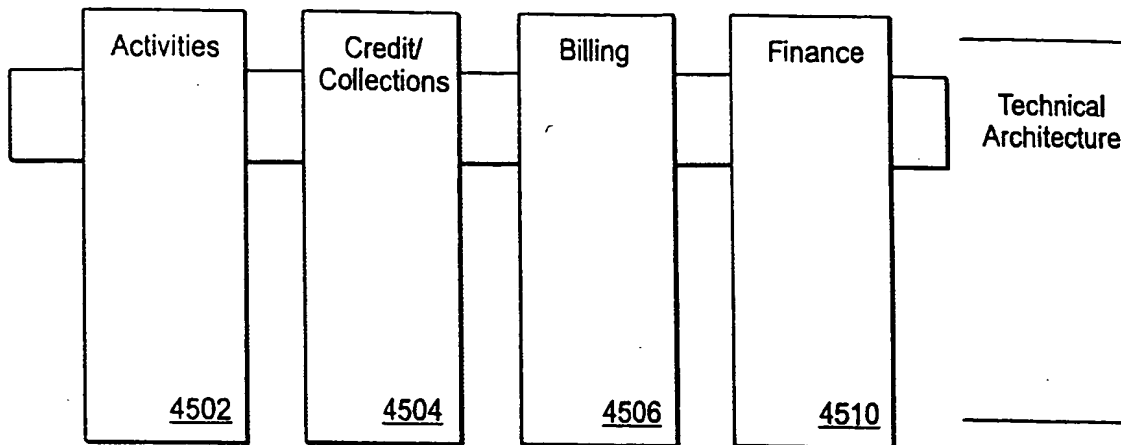


Fig. 45

Architecture-Based Organization

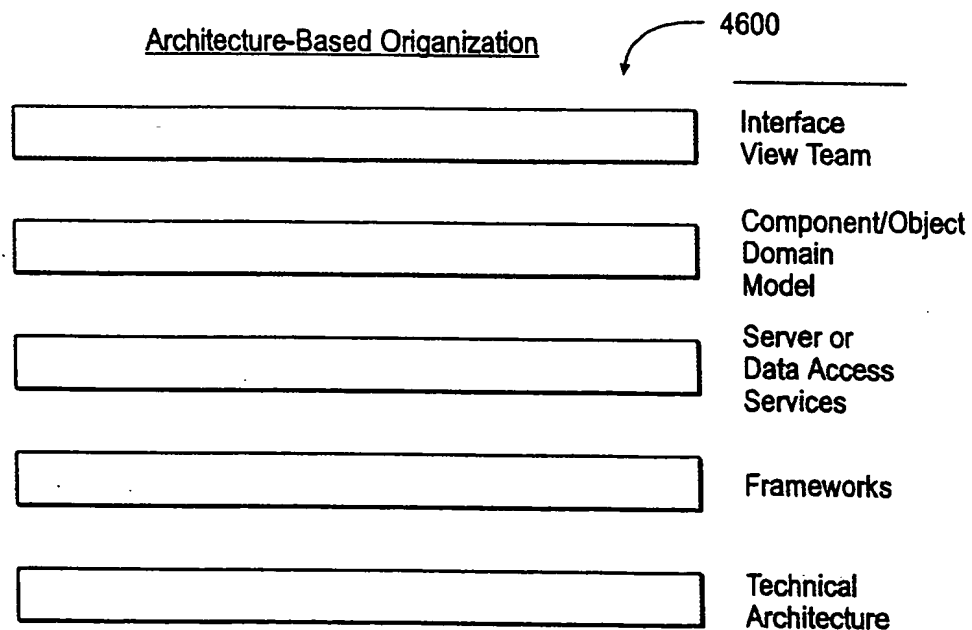
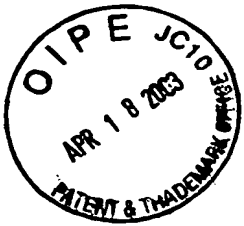


Fig. 46



Workcell Approach

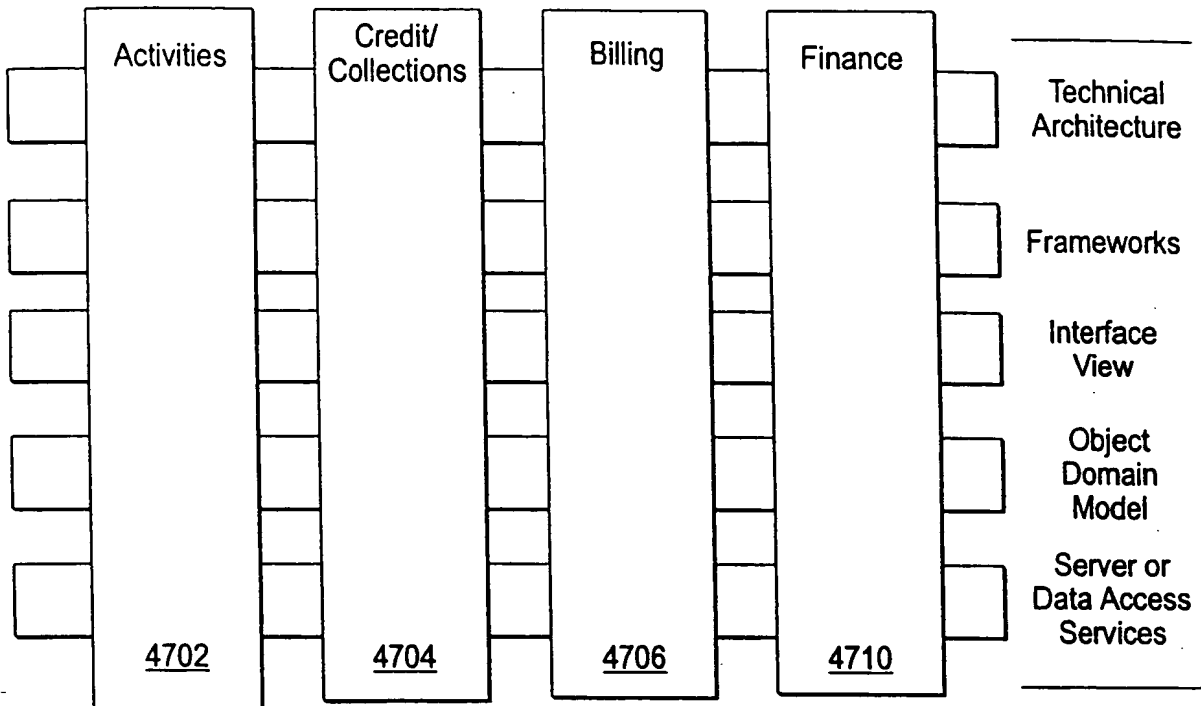


Fig. 47

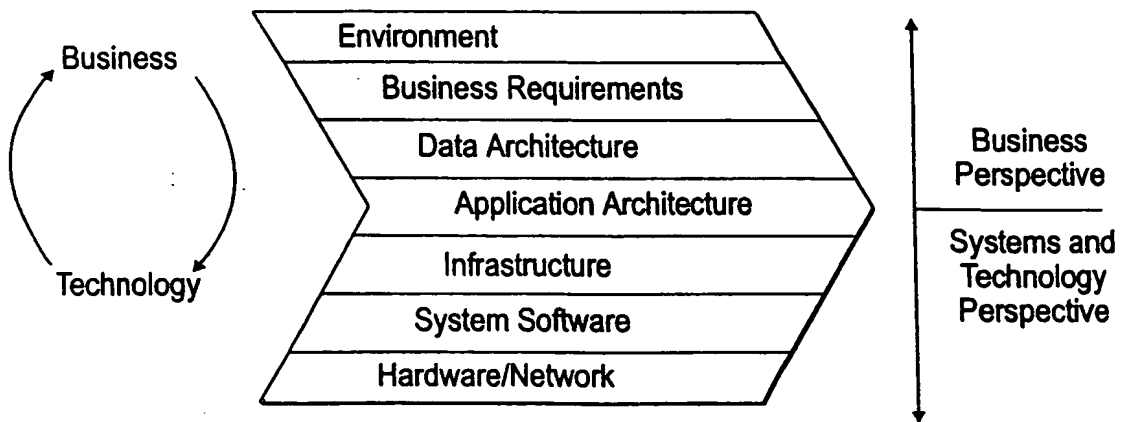


Fig. 48

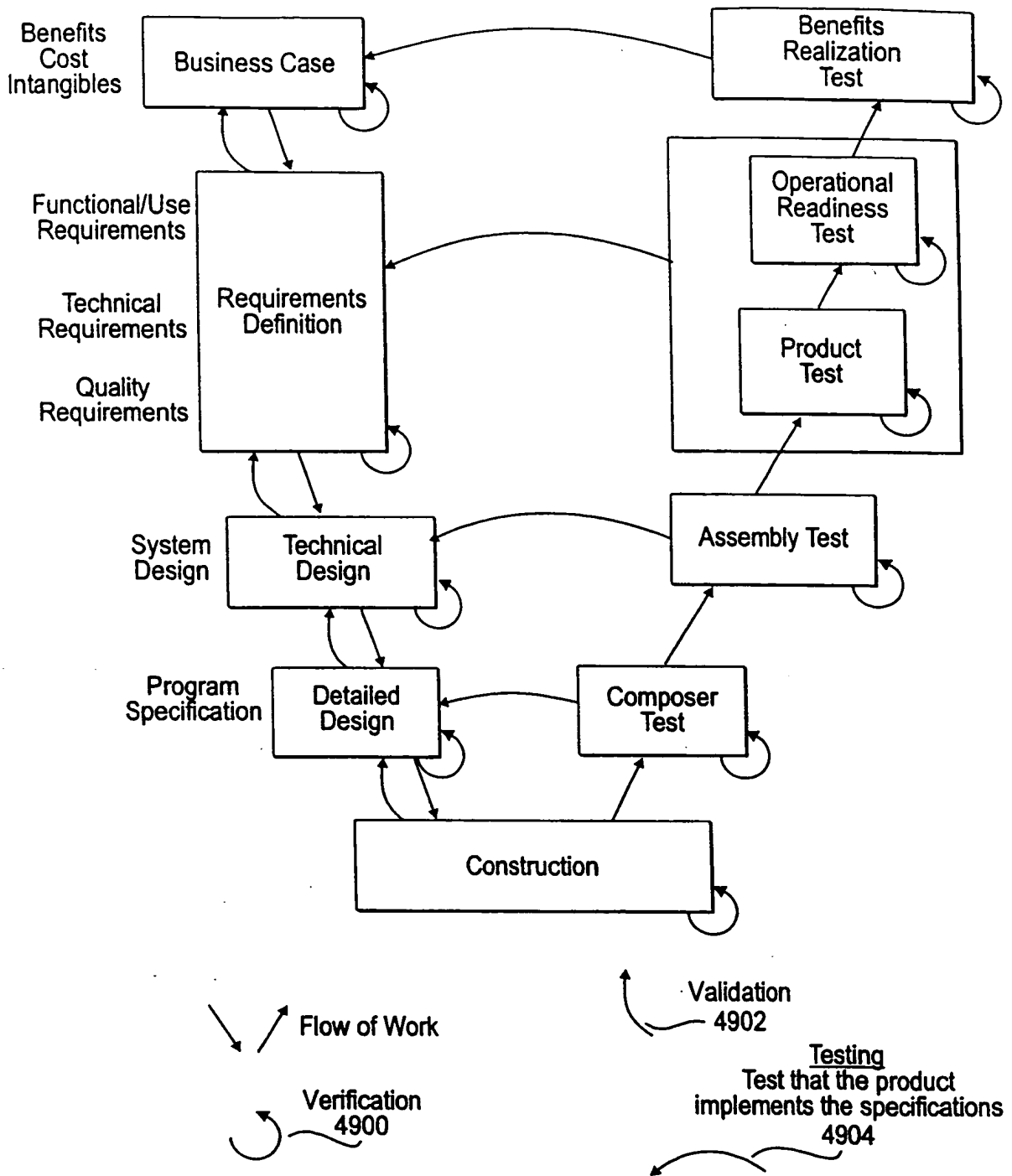


Fig. 49

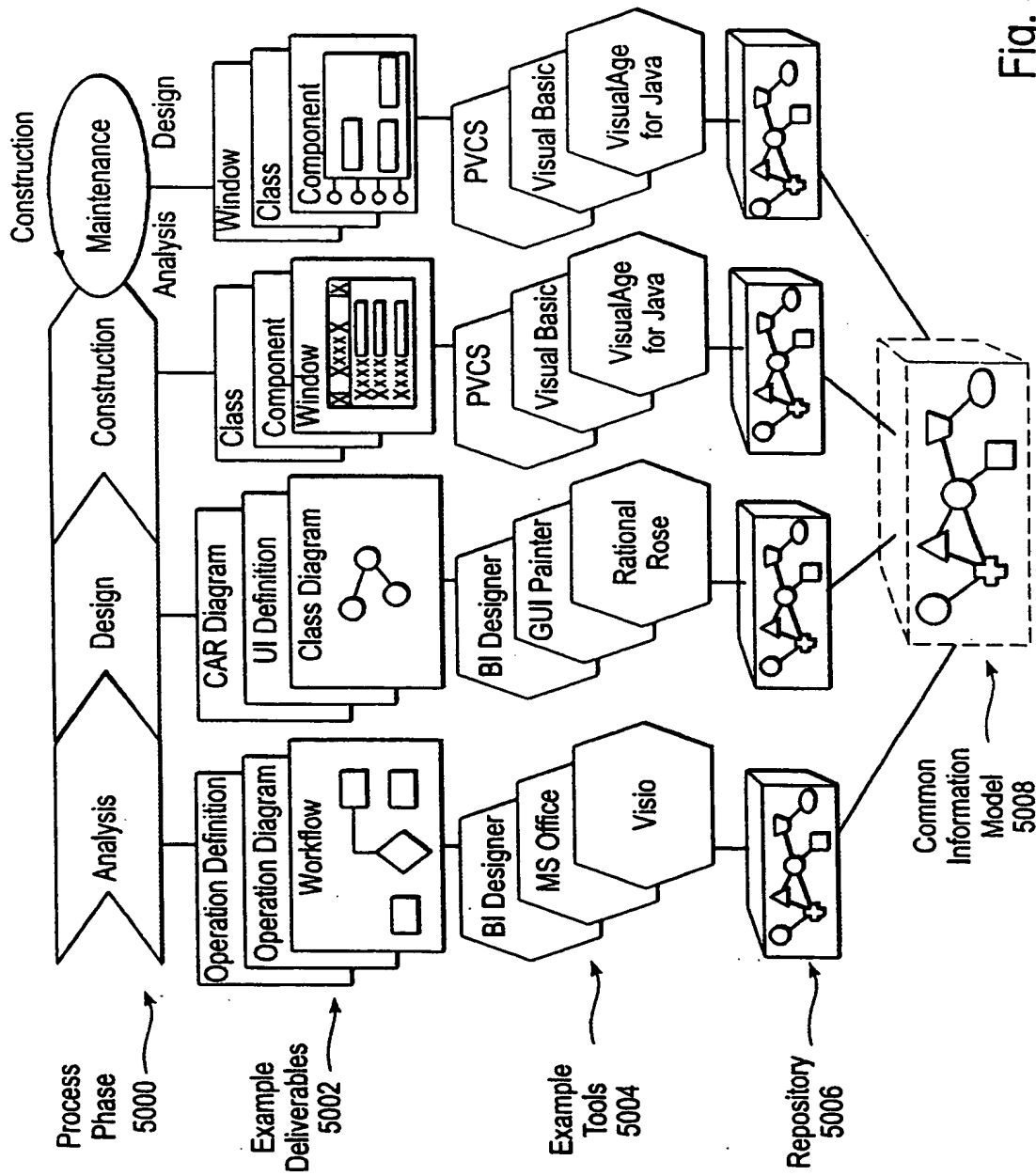


Fig. 50

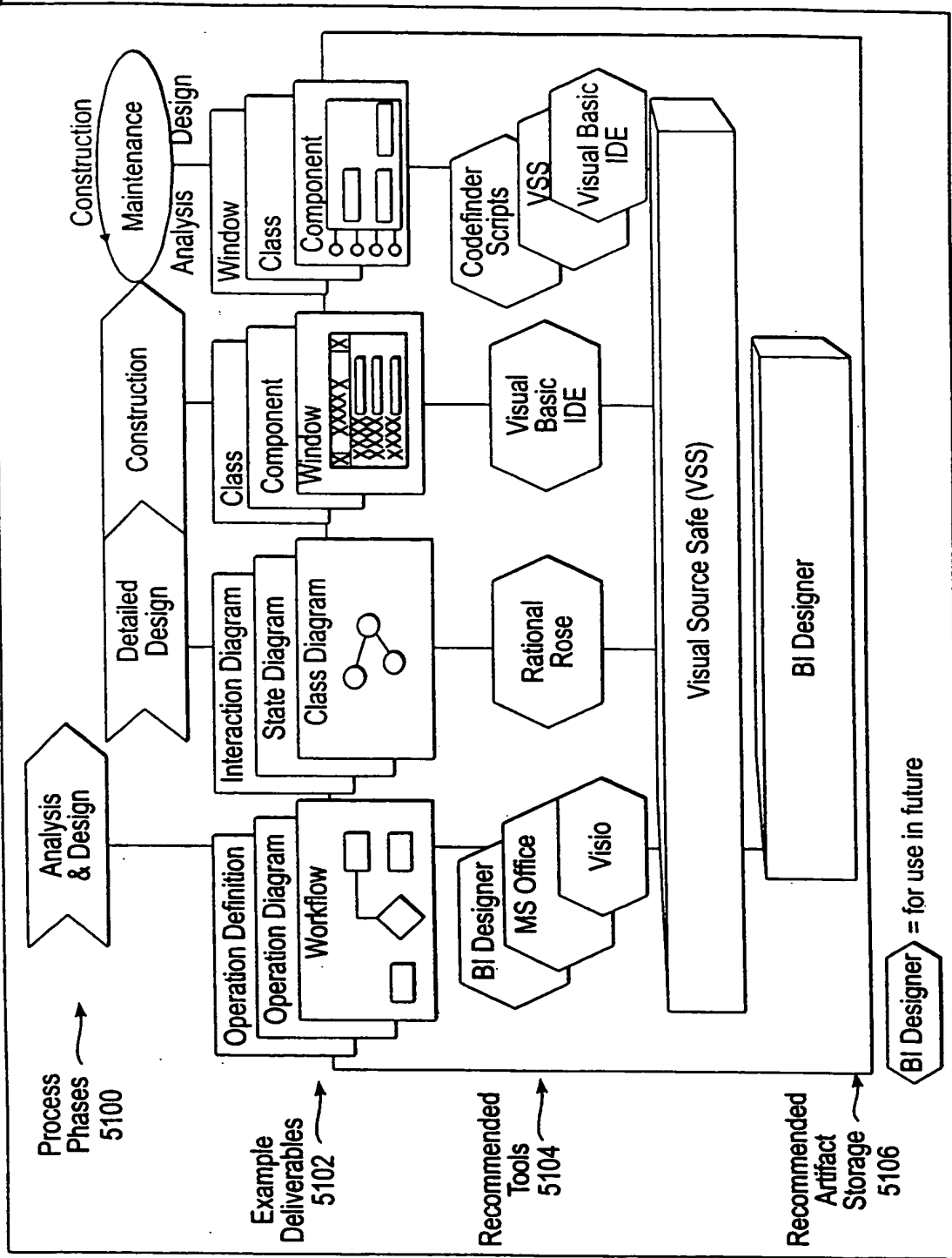


Fig. 51

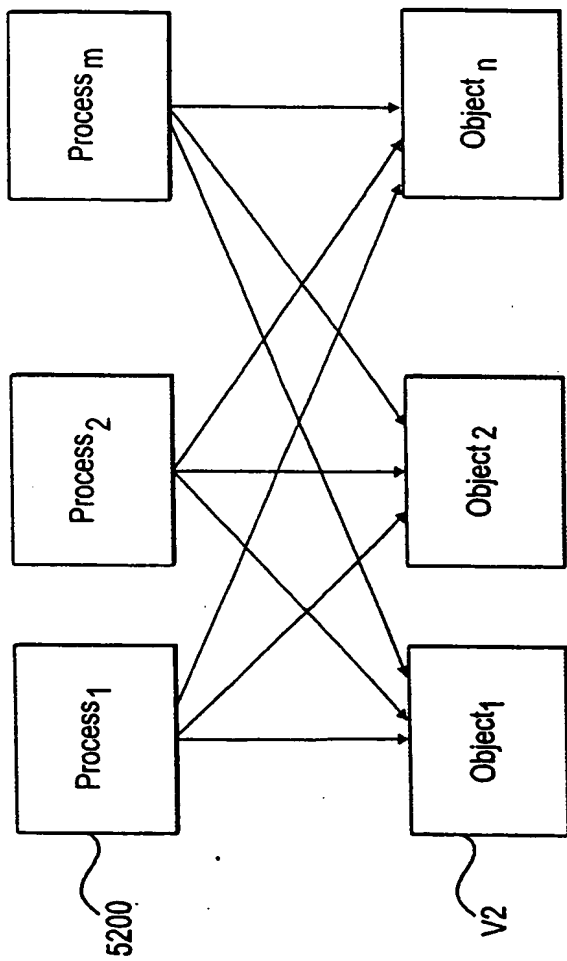


Fig. 52

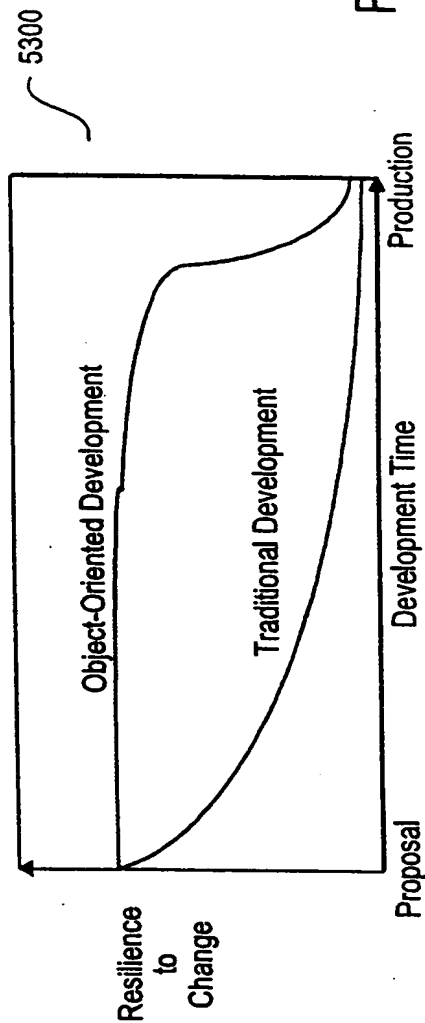


Fig. 53



5400

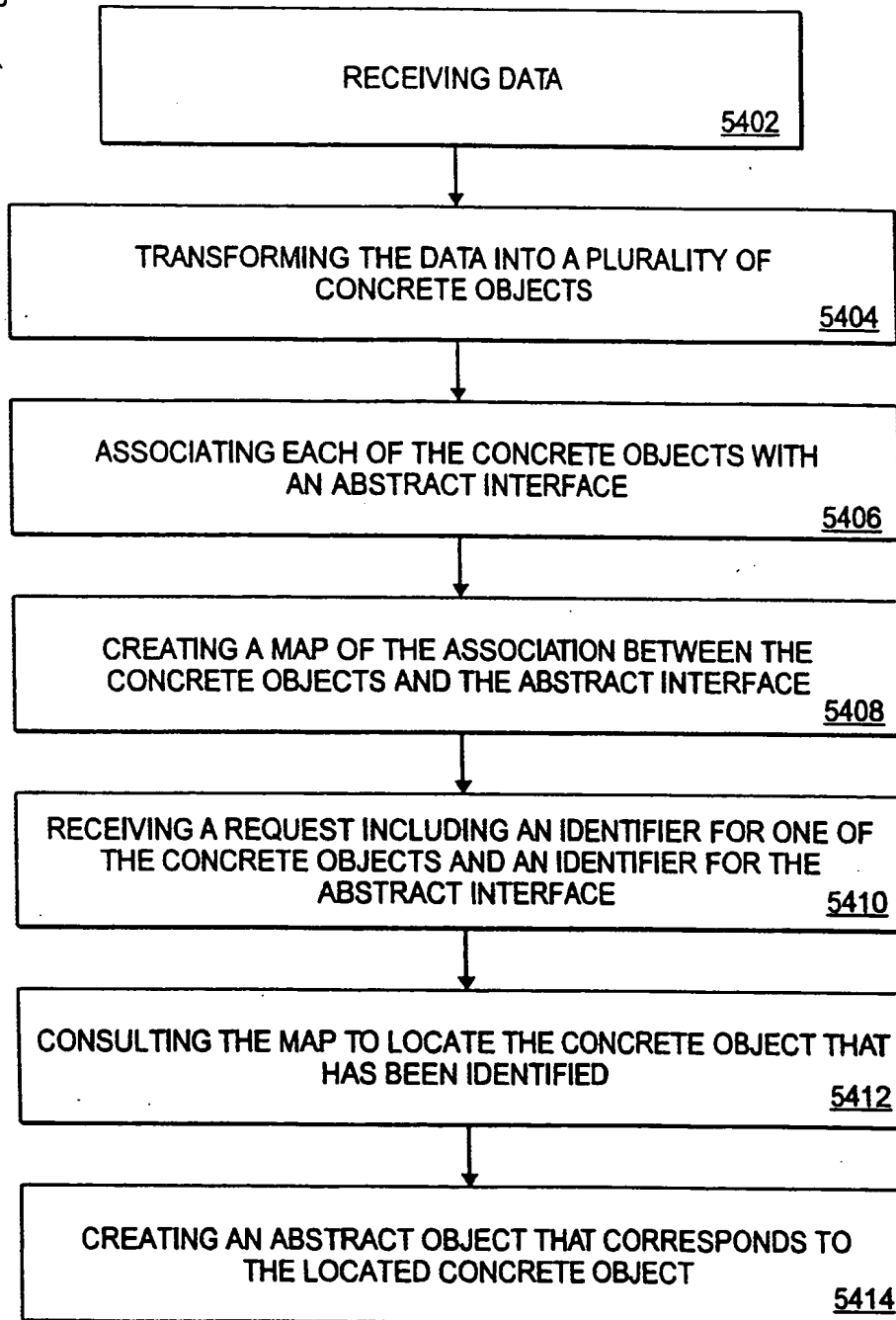


Fig. 54



5500

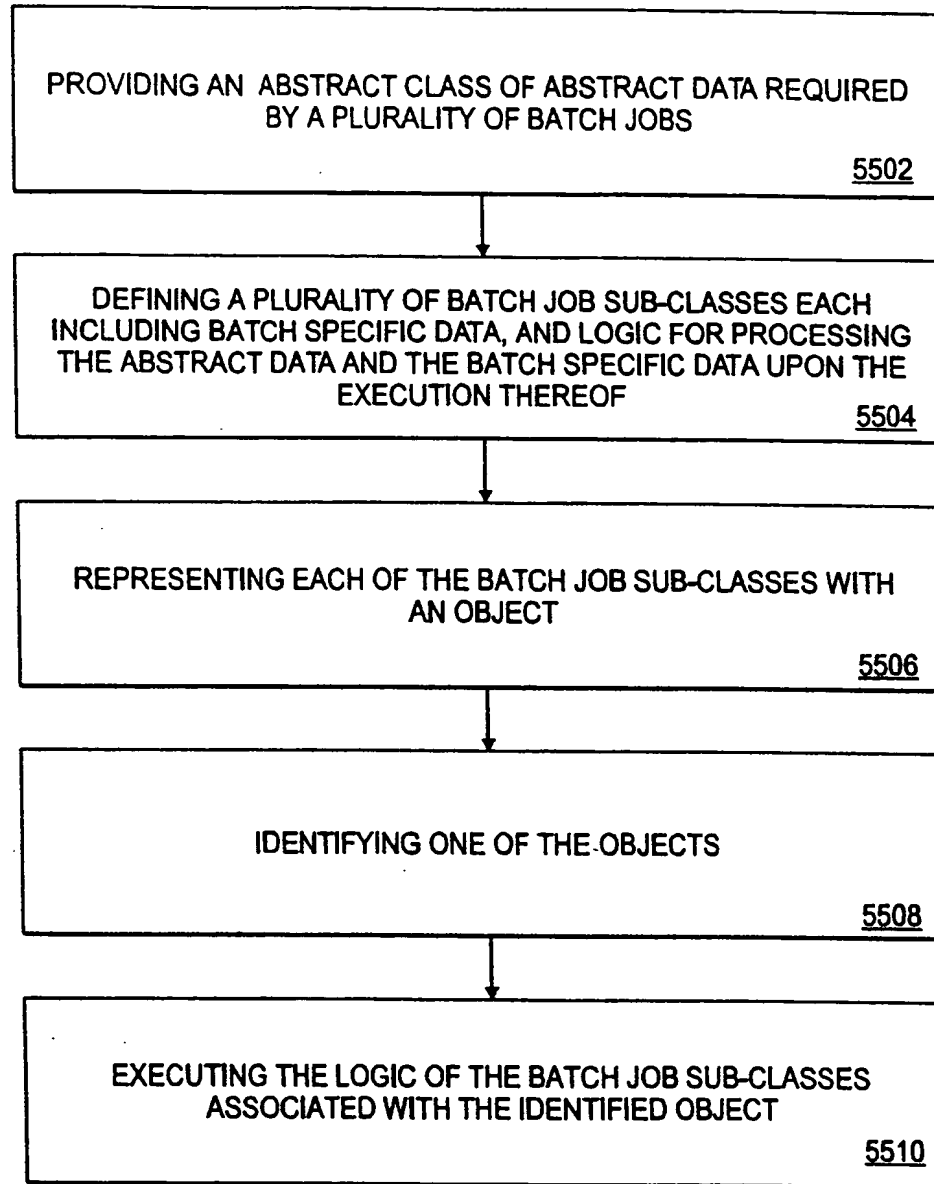


Fig. 55

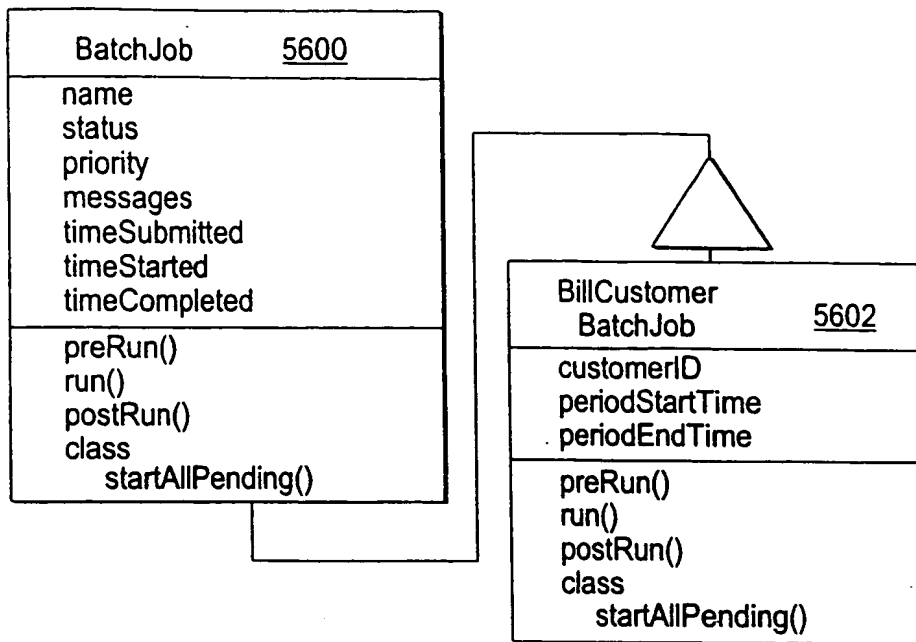
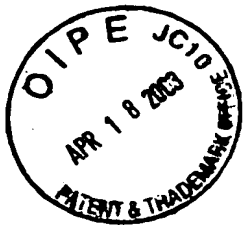


Fig. 56

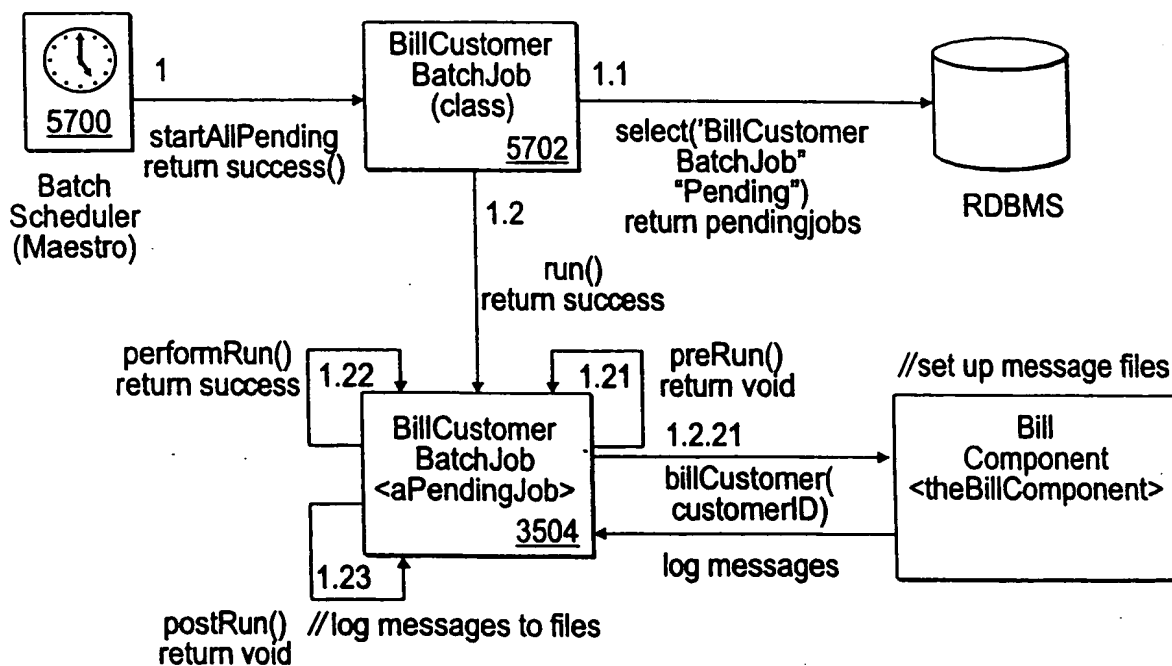


Fig. 57



5800

STORING A PLURALITY OF ATTRIBUTE VALUES FOR A BUSINESS
OBJECT IN AN ATTRIBUTE DICTIONARY

5802

PROVIDING A PLURALITY OF ATTRIBUTE NAMES IN THE
ATTRIBUTE DICTIONARY FOR THE STORED ATTRIBUTE VALUES

5804

VERIFYING THAT A CURRENT USER IS AUTHORIZED TO EITHER
SET OR GET ONE OF THE ATTRIBUTE VALUES UPON A REQUEST
WHICH INCLUDES THE ATTRIBUTE NAME THAT CORRESPONDS
TO THE ATTRIBUTE VALUE

5806

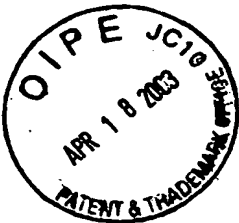
OBTAINING OR UPDATING THE ATTRIBUTE VALUE IN THE
ATTRIBUTE DICTIONARY IF THE VERIFICATION IS SUCCESSFUL

5808

BROADCASTING AN INDICATOR UPON THE ATTRIBUTE VALUE
BEING UPDATED

5810

Fig. 58



5900

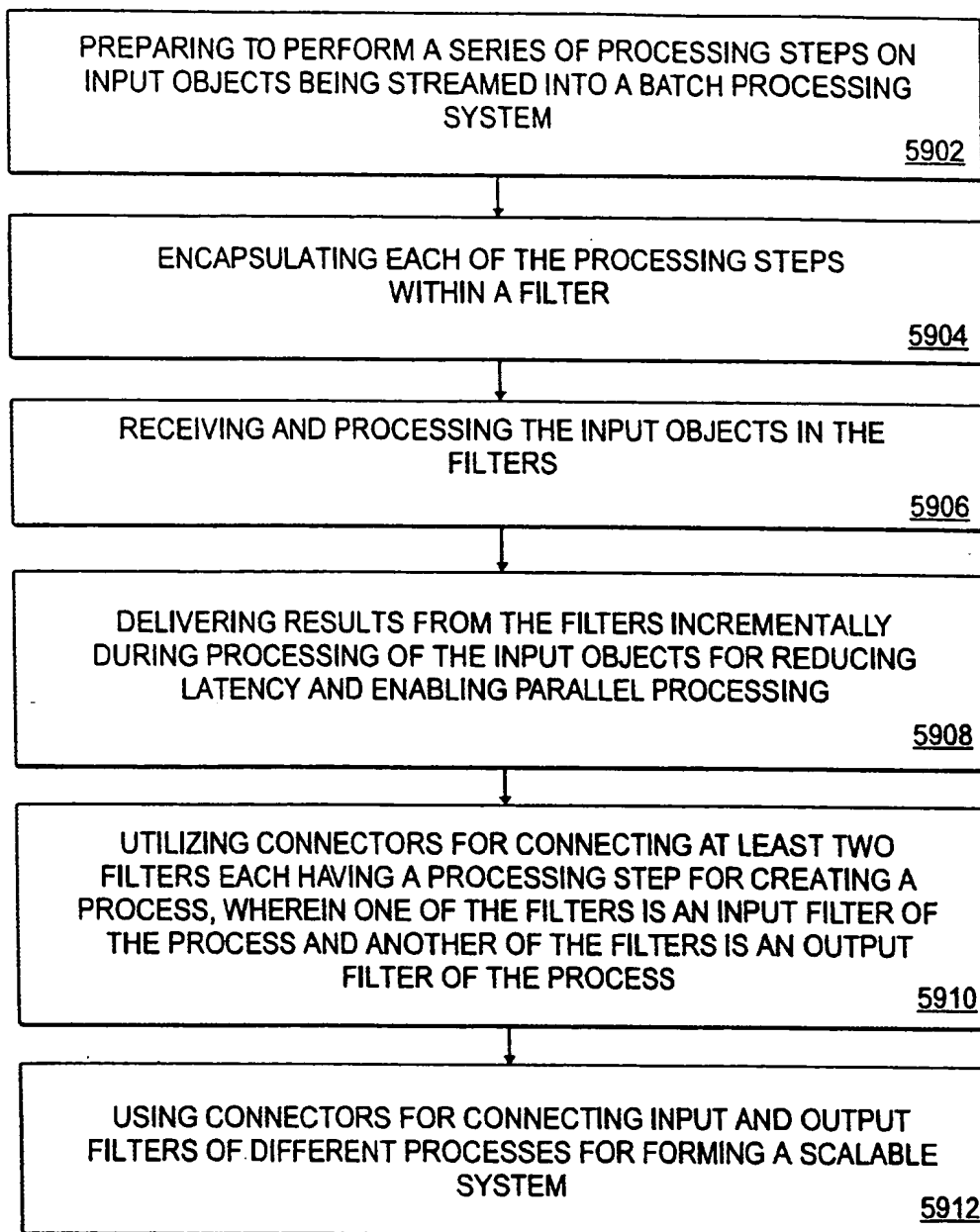


Fig. 59

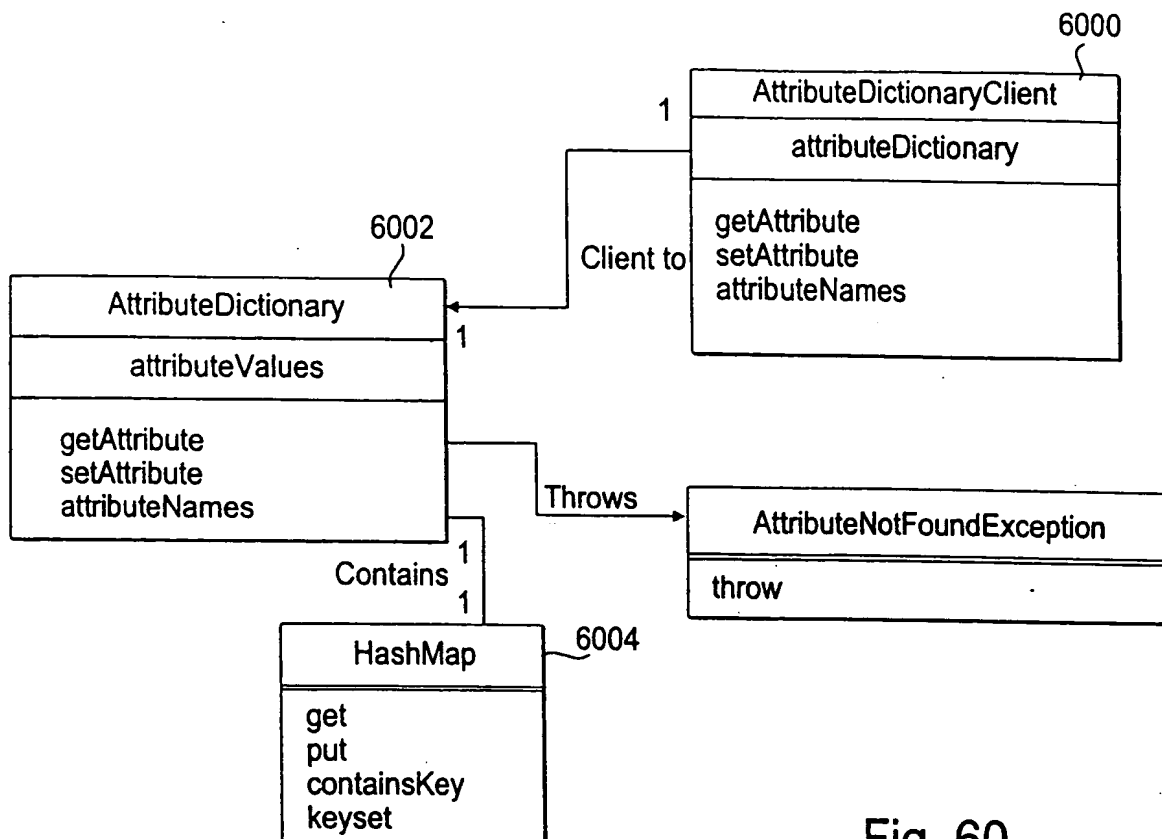
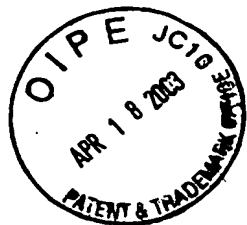


Fig. 60

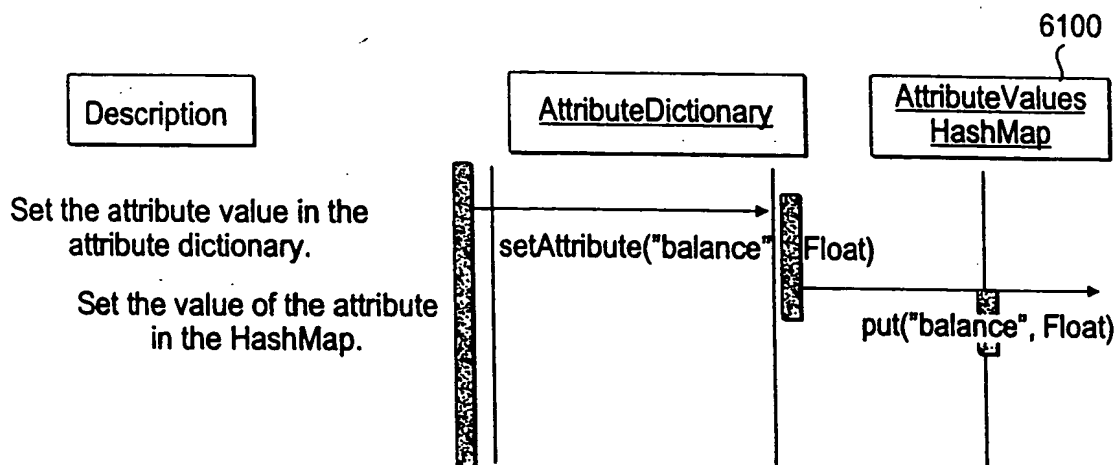


Fig. 61

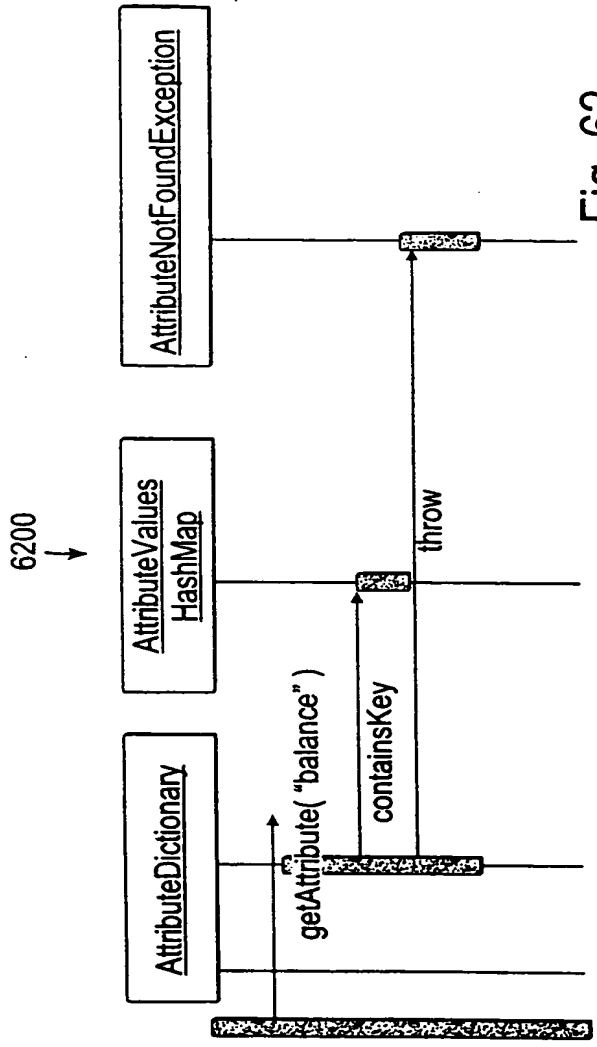


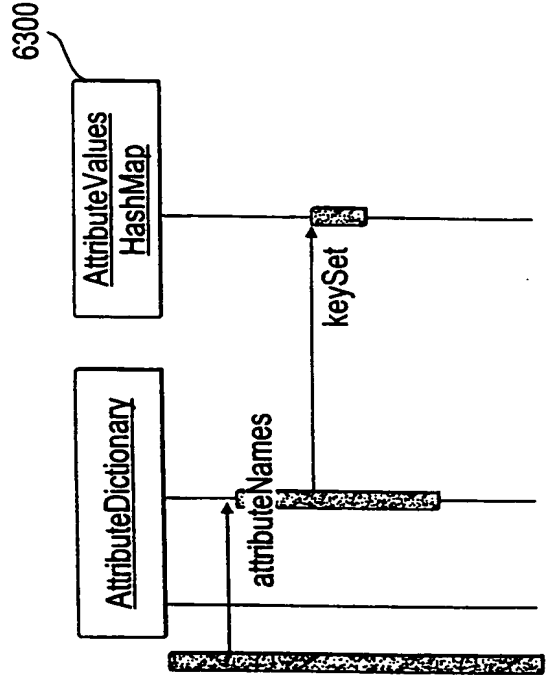
Fig. 62

Description

Ask the Attribute Dictionary for the value of the specified attribute name.

Ask the HashMap if an entry for the specified key exists.

In this scenario, the attribute does not exist, so throw an Exception.

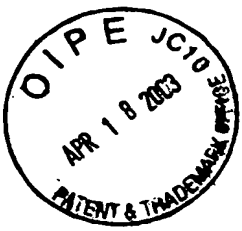


Description

Ask the Attribute Dictionary for the list of populated attributes.

Attribute Dictionary requests all keys from the HashMap and returns them.

Fig. 63



6400



PROVIDING A PLURALITY OF CONSTANT NAMES EACH HAVING A
CORRESPONDING CONSTANT VALUE

6402



GROUPING THE CONSTANT NAMES INTO CONSTANT CLASSES
BASED ON AN ENTITY WHICH THE CONSTANT VALUES
REPRESENTS

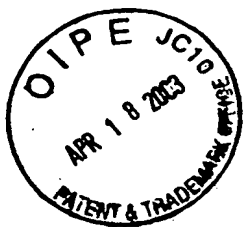
6404



ALLOWING ACCESS TO THE CONSTANT VALUES BY RECEIVING A
CALL INCLUDING THE CORRESPONDING CONSTANT NAME AND
CORRESPONDING CONSTANT CLASS

6406

Fig. 64



6500

DEFINING A SENDING FIXED FORMAT CONTRACT ON INTERFACE
CODE FOR A SENDING SYSTEM AND A RECEIVING FIXED FORMAT
CONTRACT ON INTERFACE CODE FOR A RECEIVING SYSTEM

6502

TRANSLATING A MESSAGE TO BE SENT FROM THE SENDING
SYSTEM TO THE RECEIVING SYSTEM BASED ON THE SENDING
FIXED FORMAT CONTRACT

6504

SENDING THE MESSAGE FROM THE SENDING SYSTEM

6506

RECEIVING THE MESSAGE BY THE RECEIVING SYSTEM

6508

TRANSLATING THE MESSAGE RECEIVED BY THE RECEIVING
SYSTEM BASED ON THE RECEIVING FIXED FORMAT CONTRACT

6510

Fig. 65

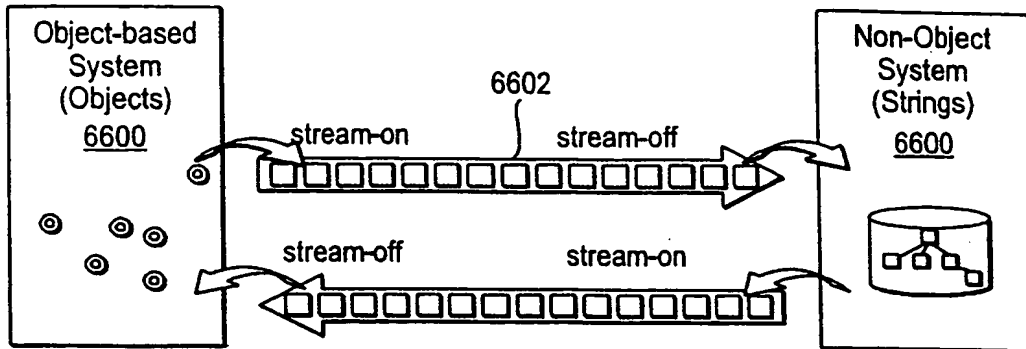


Fig. 66

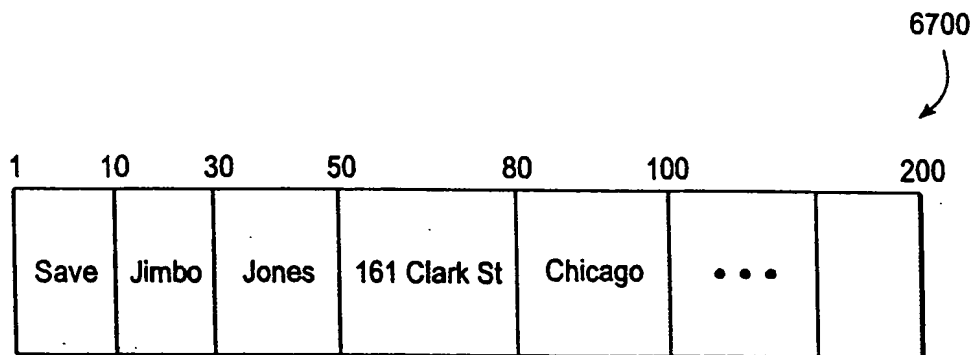


Fig. 67

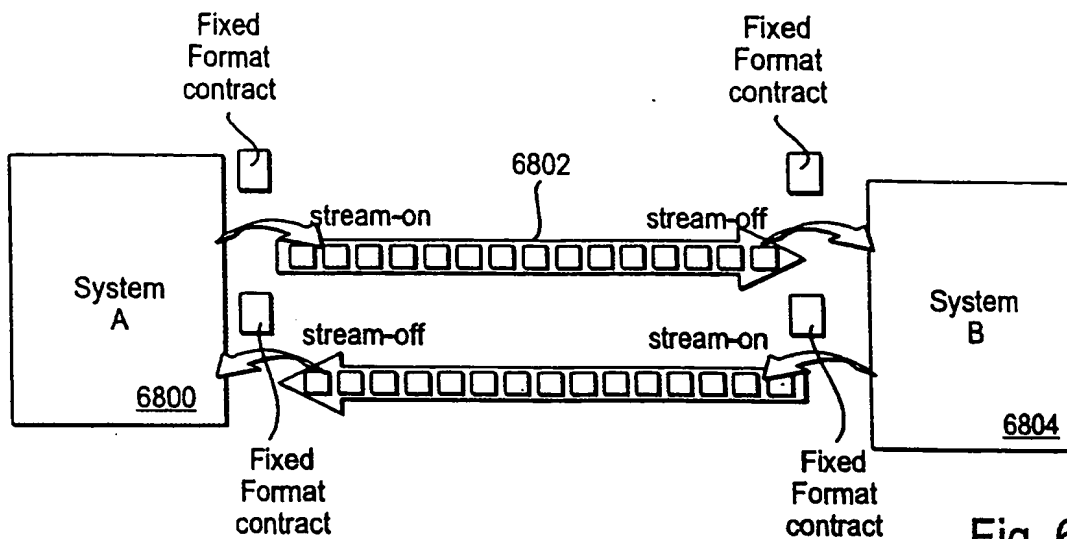


Fig. 68

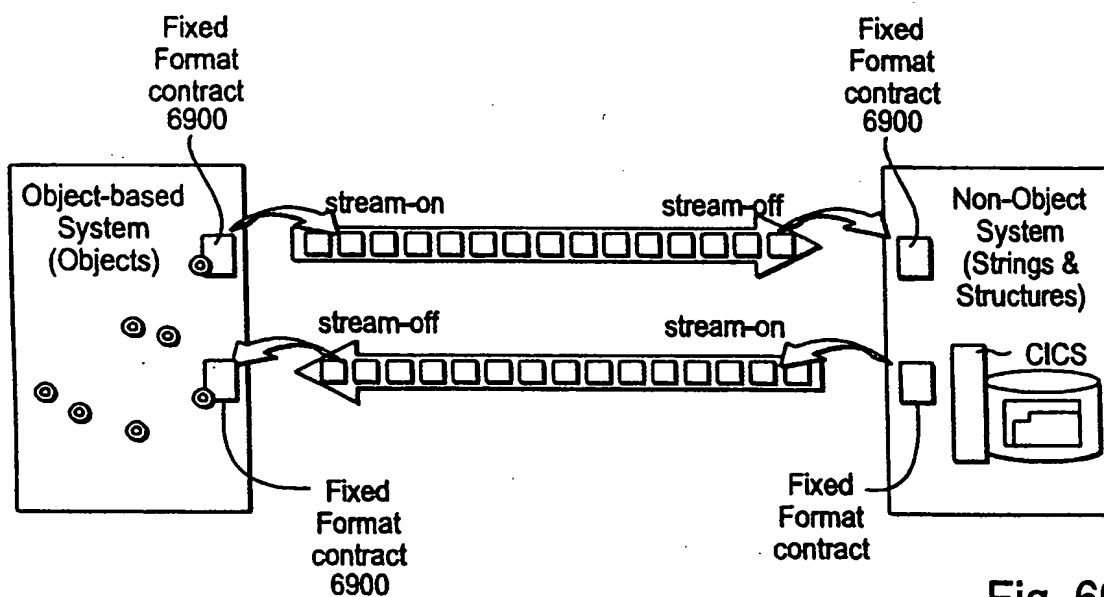


Fig. 69

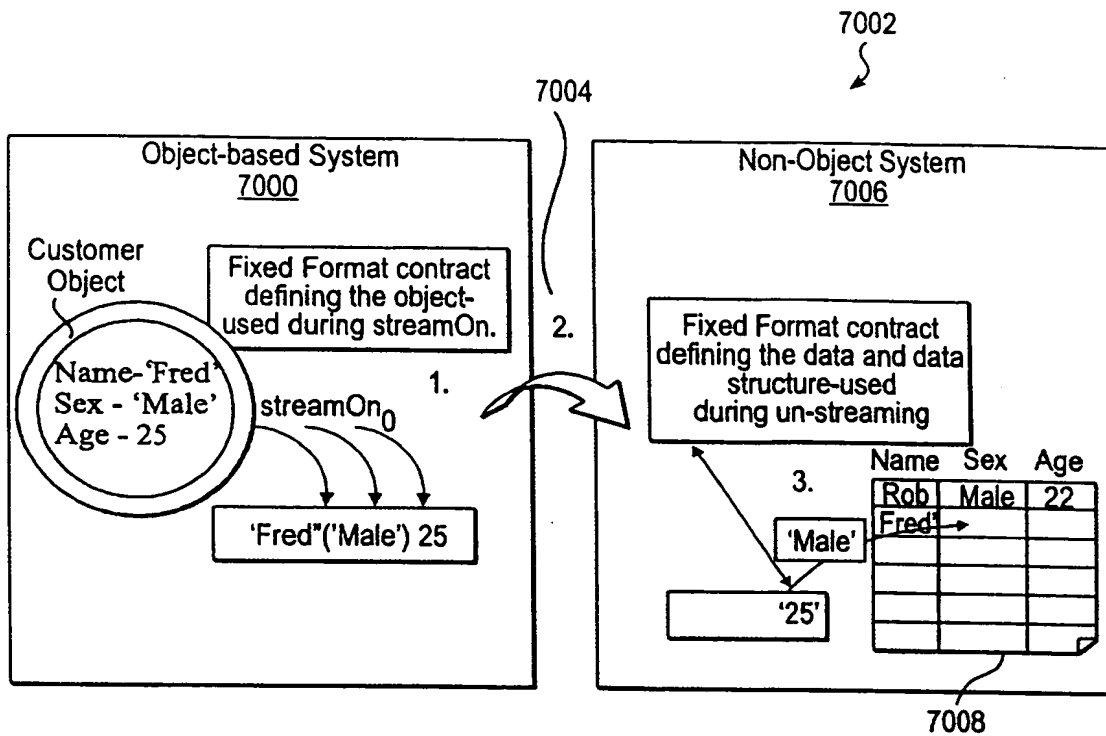


Fig. 70

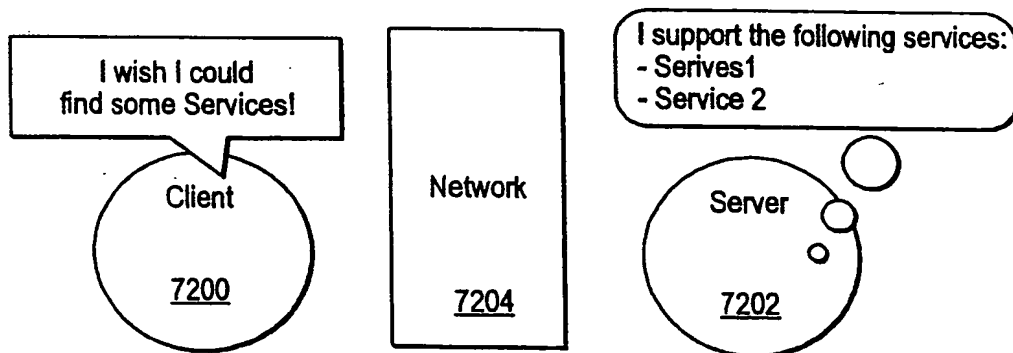


Fig. 72



7100

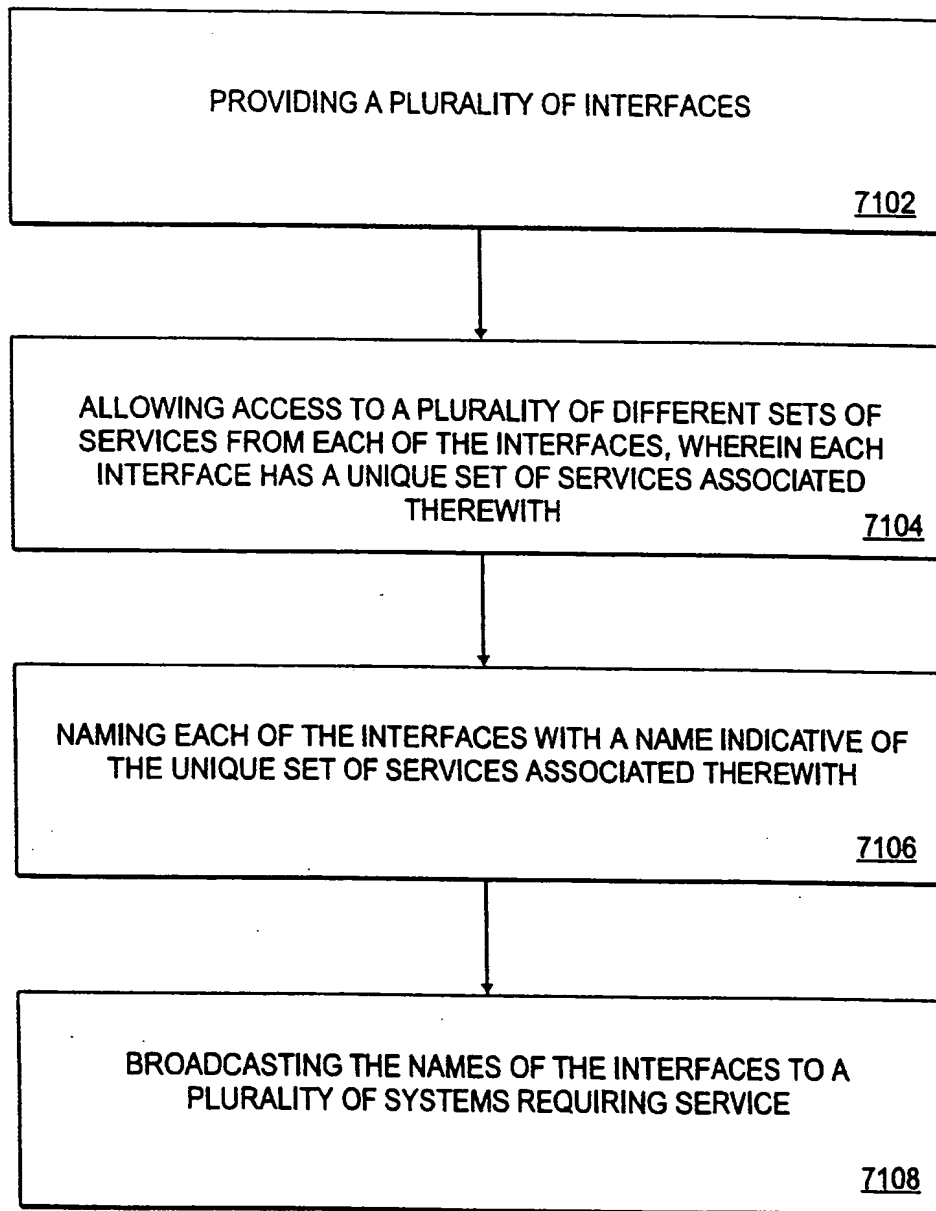


Fig. 71

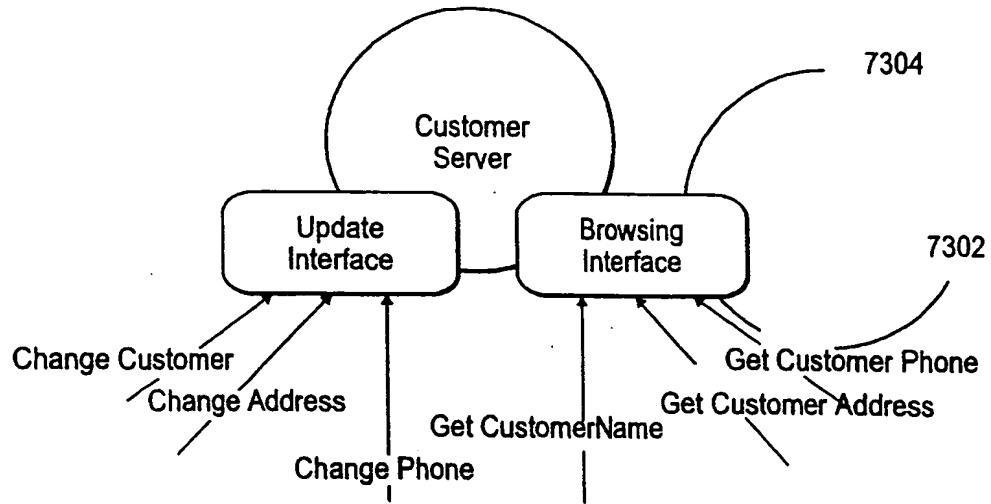


Fig. 73

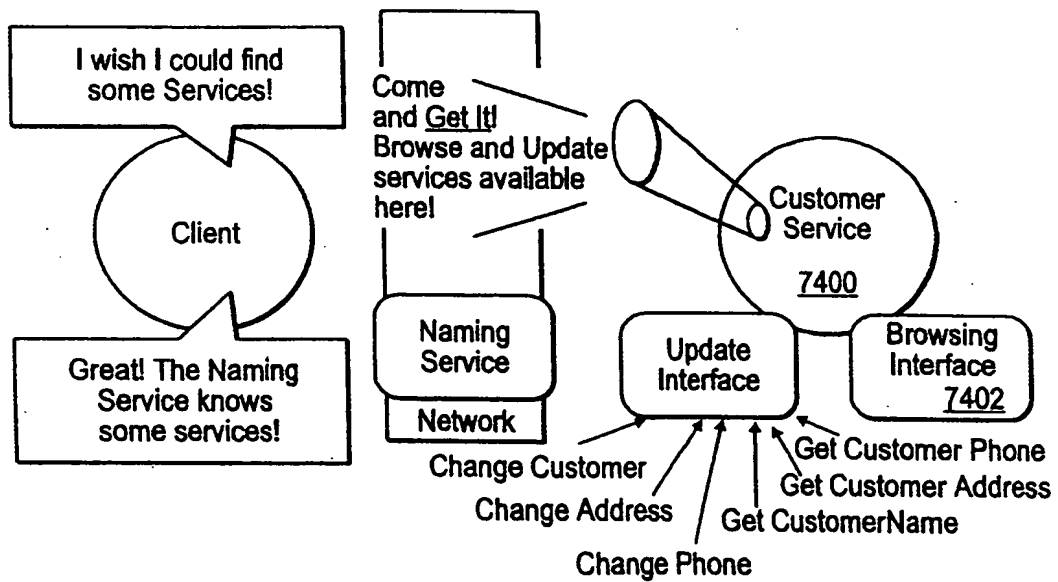


Fig. 74

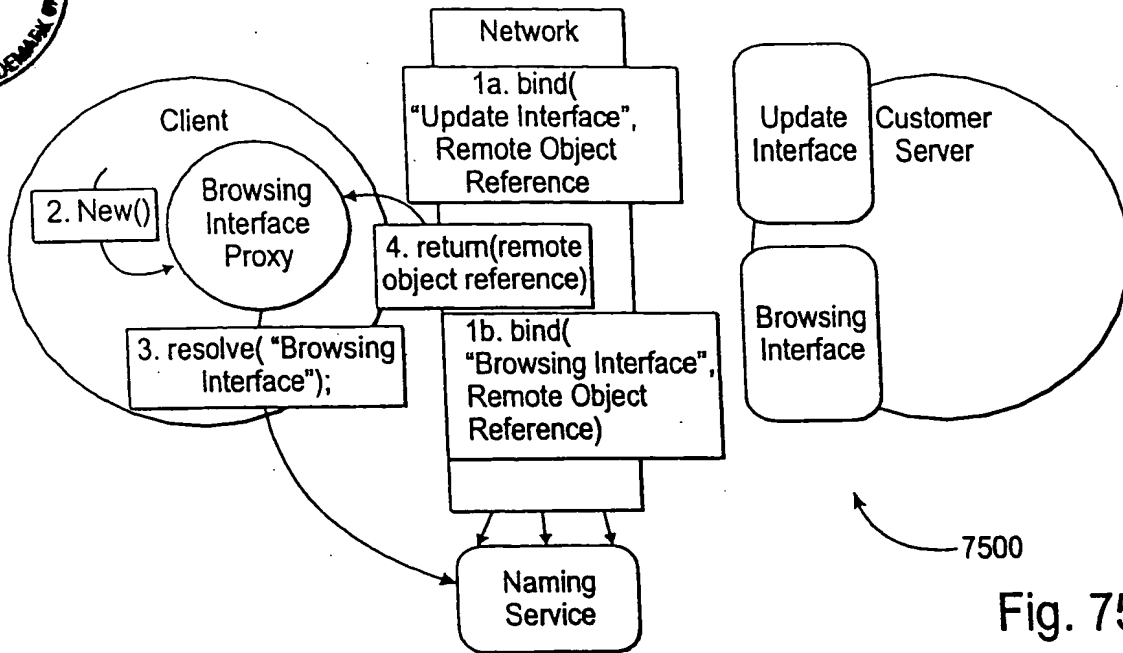


Fig. 75

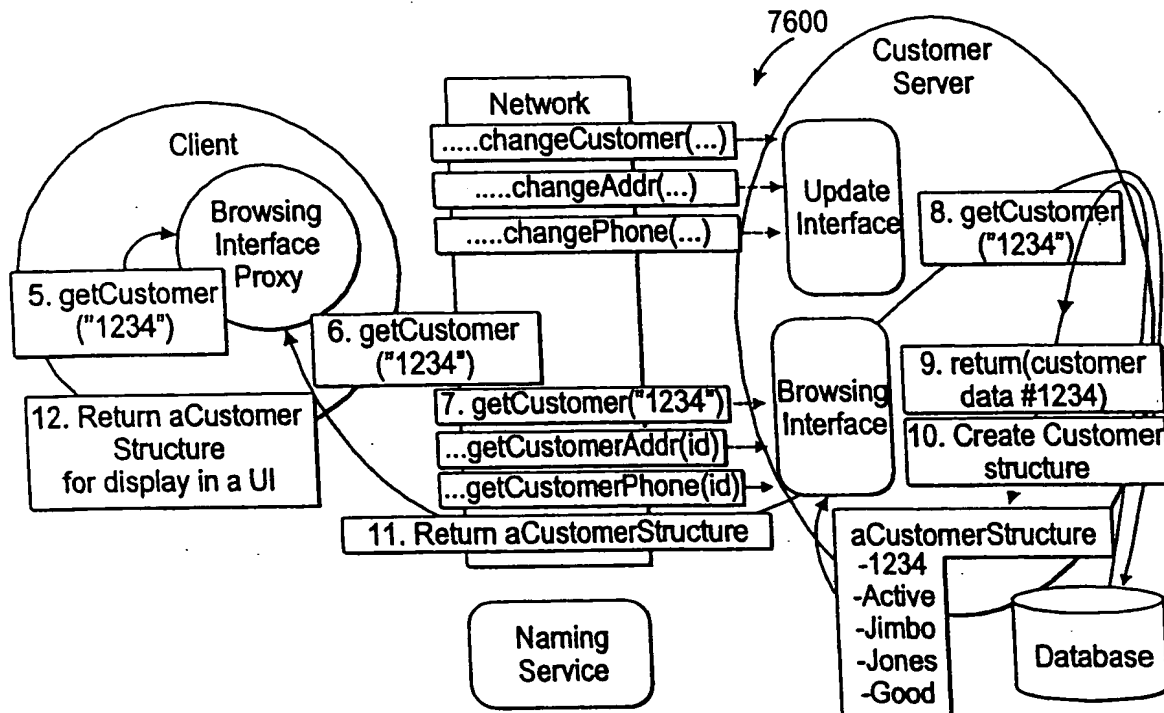
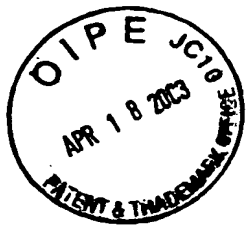


Fig. 76



7700



PROVIDING A PLURALITY OF COMPONENTS COUPLED TO AT
LEAST ONE CLIENT VIA A COMPONENT INTEGRATION
ARCHITECTURE FOR SERVICING THE CLIENT

7702



INTERCONNECTING A LEGACY SYSTEM TO THE CLIENT VIA THE
INTEGRATION ARCHITECTURE USING A LEGACY WRAPPER

7704



INTERFACING THE LEGACY SYSTEM AND THE CLIENT VIA THE
LEGACY WRAPPER BY COMMUNICATING WITH THE CLIENT BY
WAY OF A FIRST PROTOCOL AND BY COMMUNICATING WITH THE
LEGACY SYSTEM BY WAY OF A SECOND PROTOCOL.

7706

Fig. 77

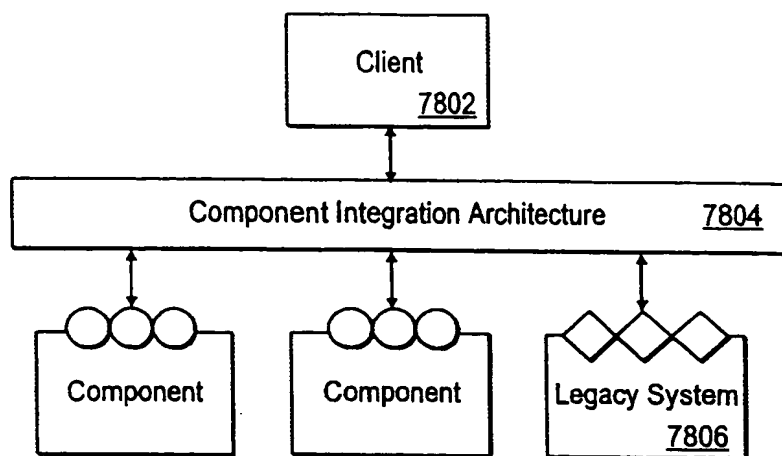
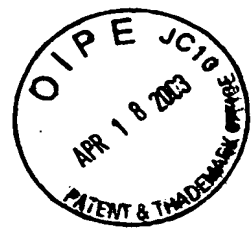


Fig. 78

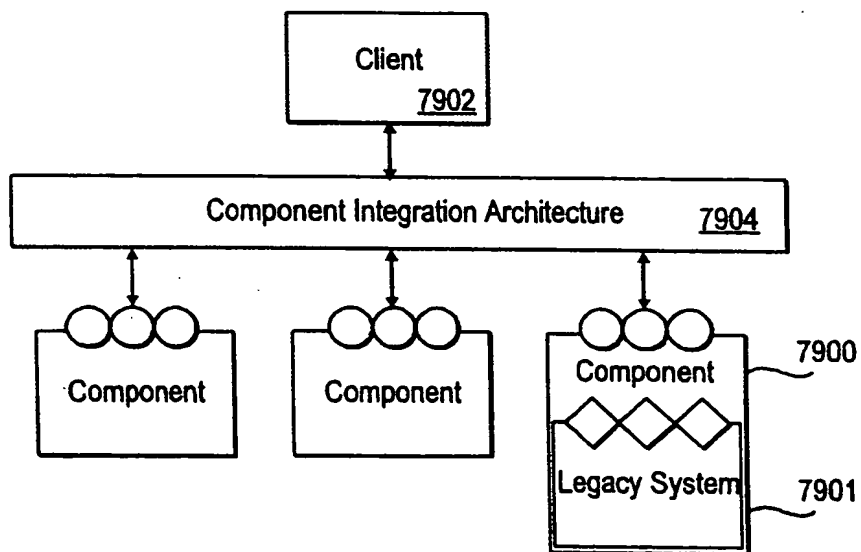


Fig. 79

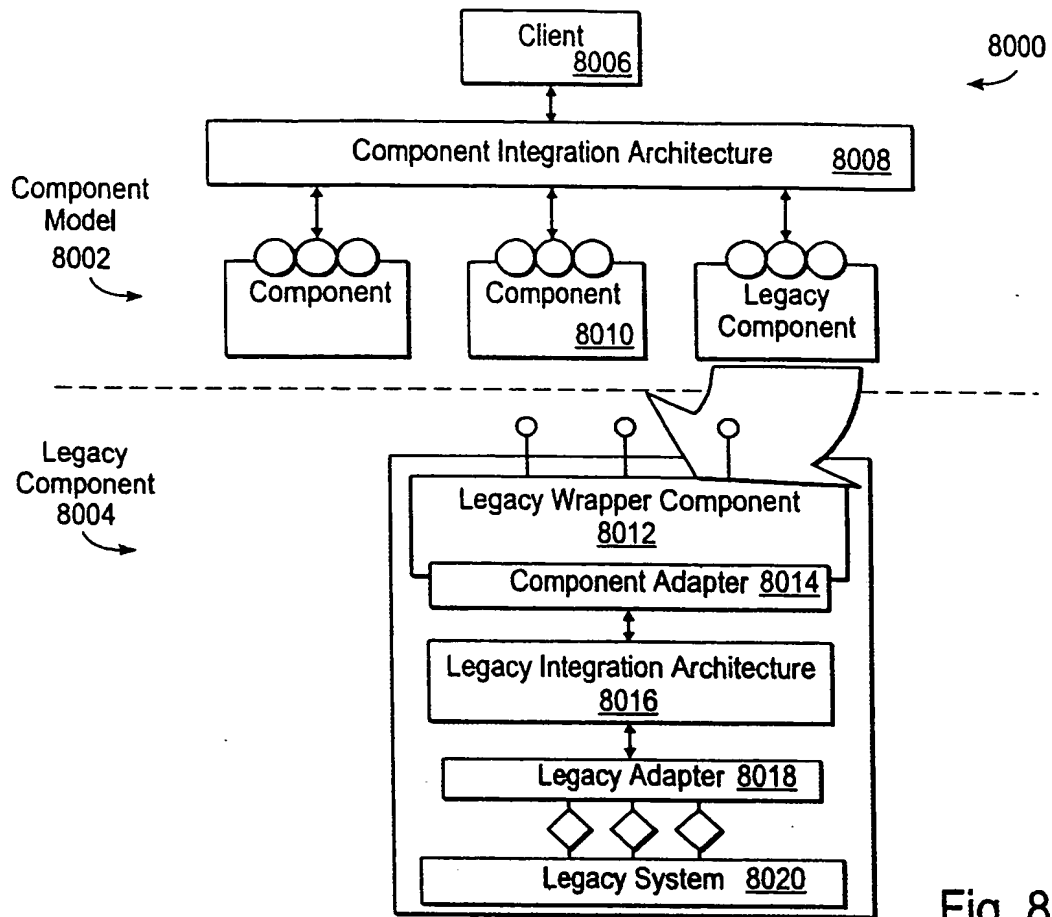


Fig. 80

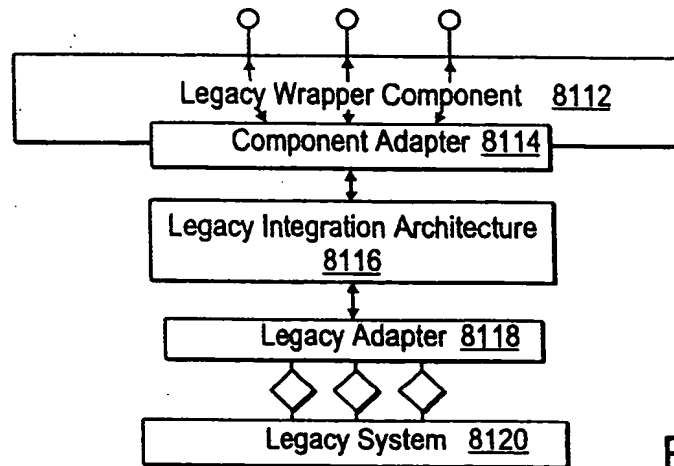


Fig. 81

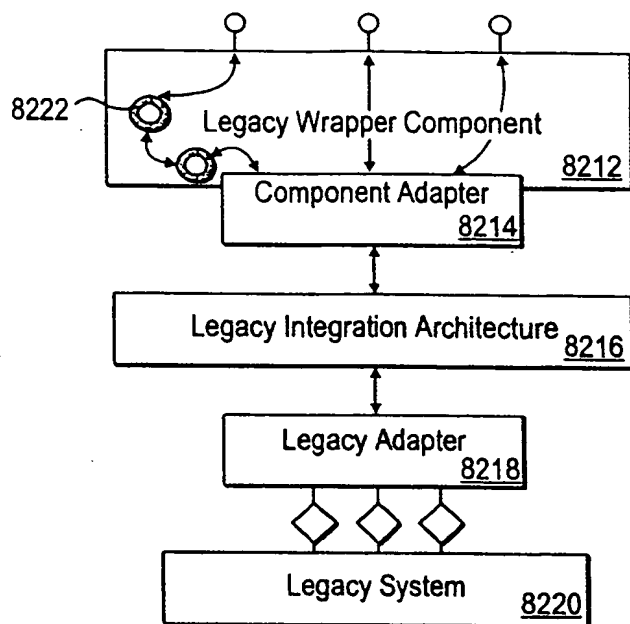
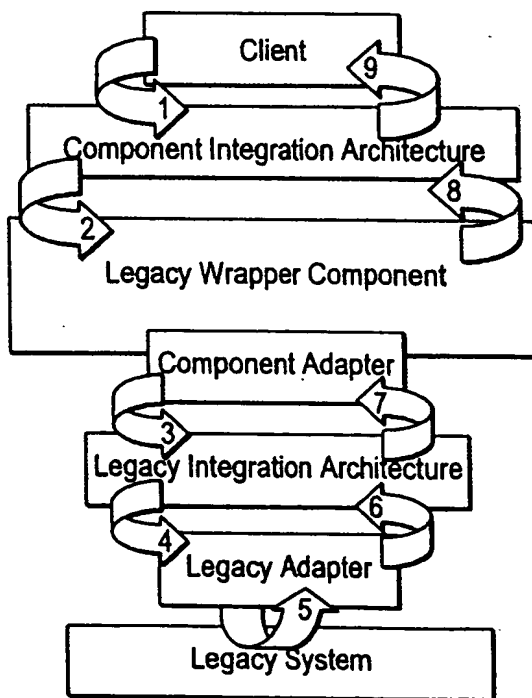


Fig. 82



8300

Fig. 83

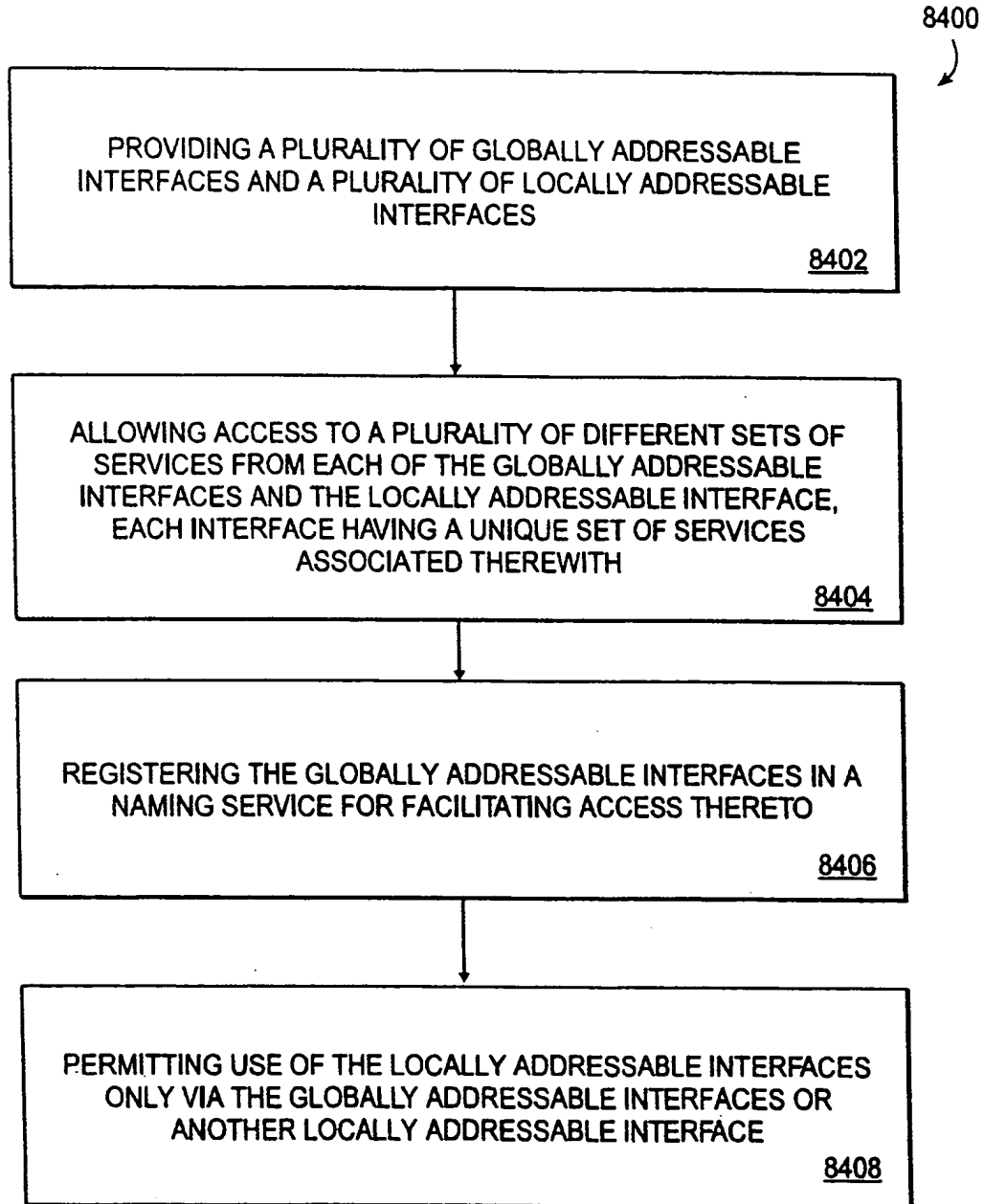
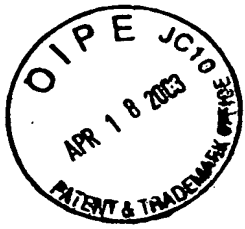
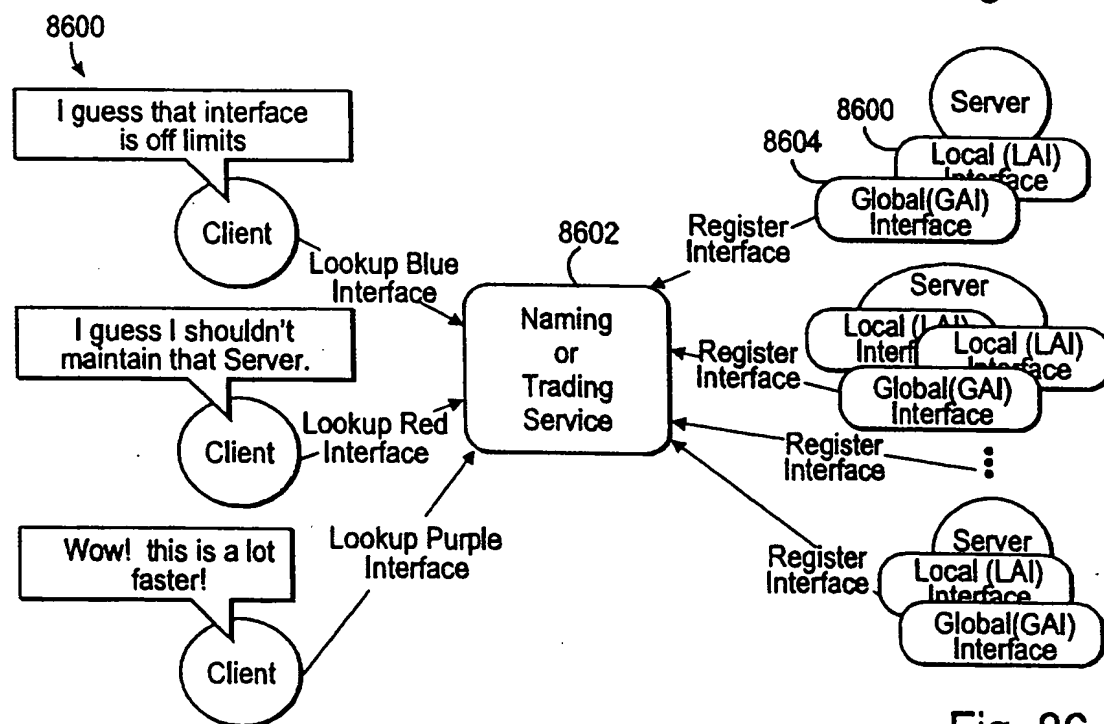
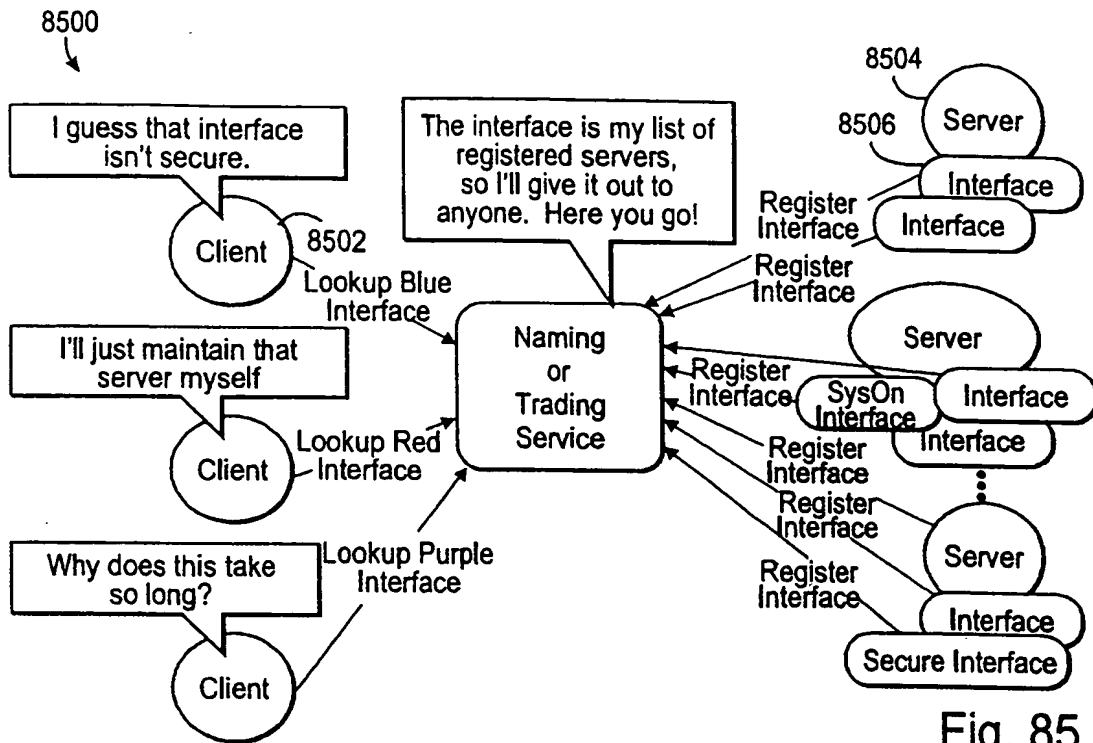


Fig. 84



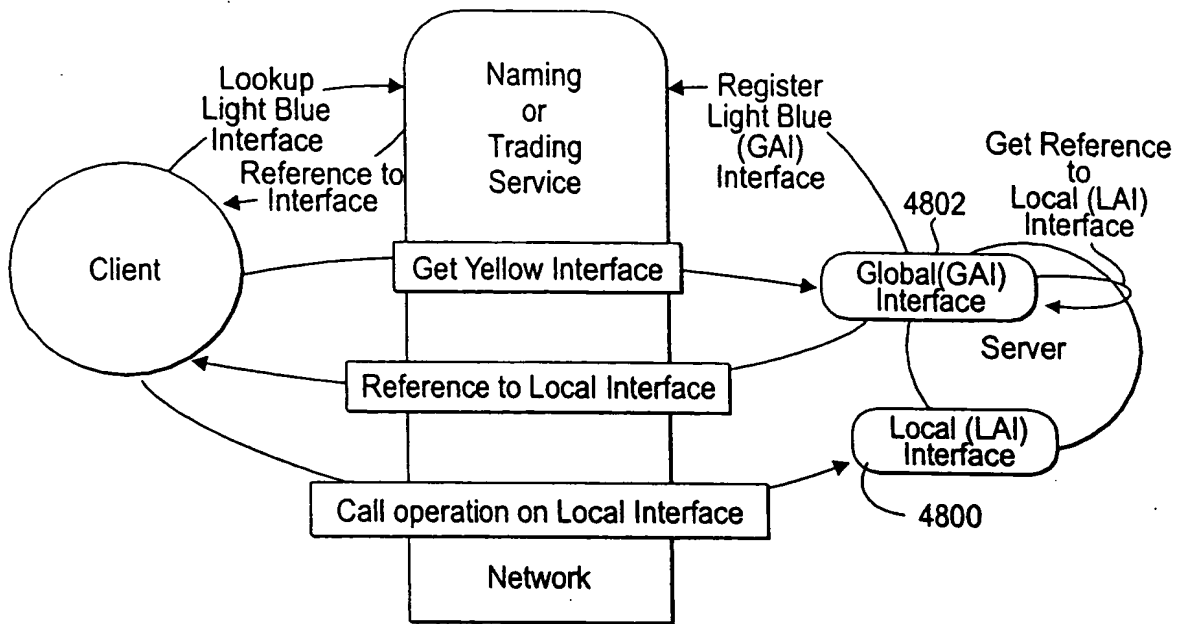


Fig. 87

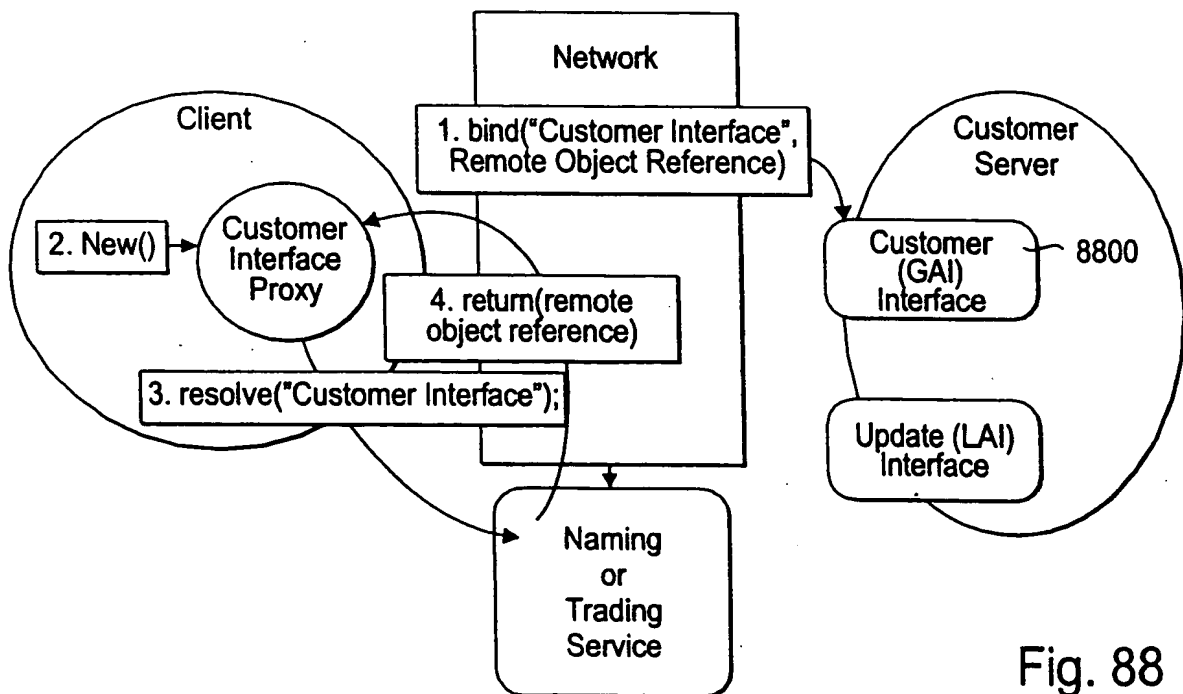


Fig. 88

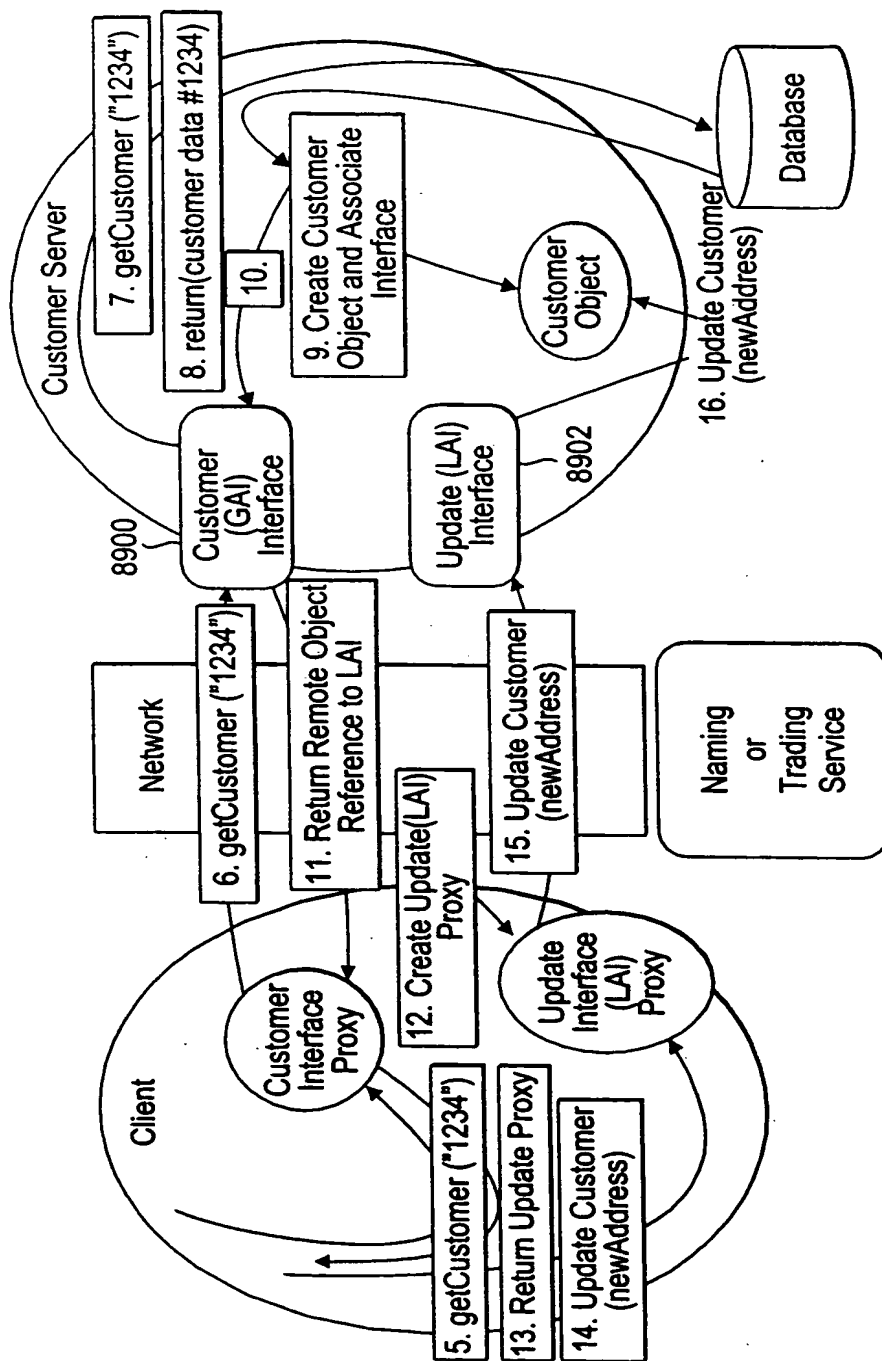


Fig. 89

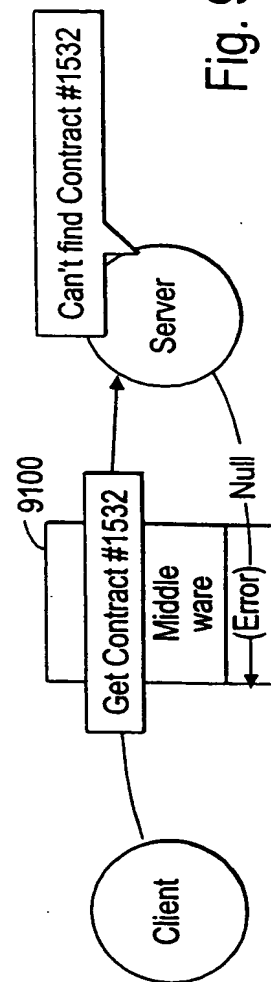


Fig. 91

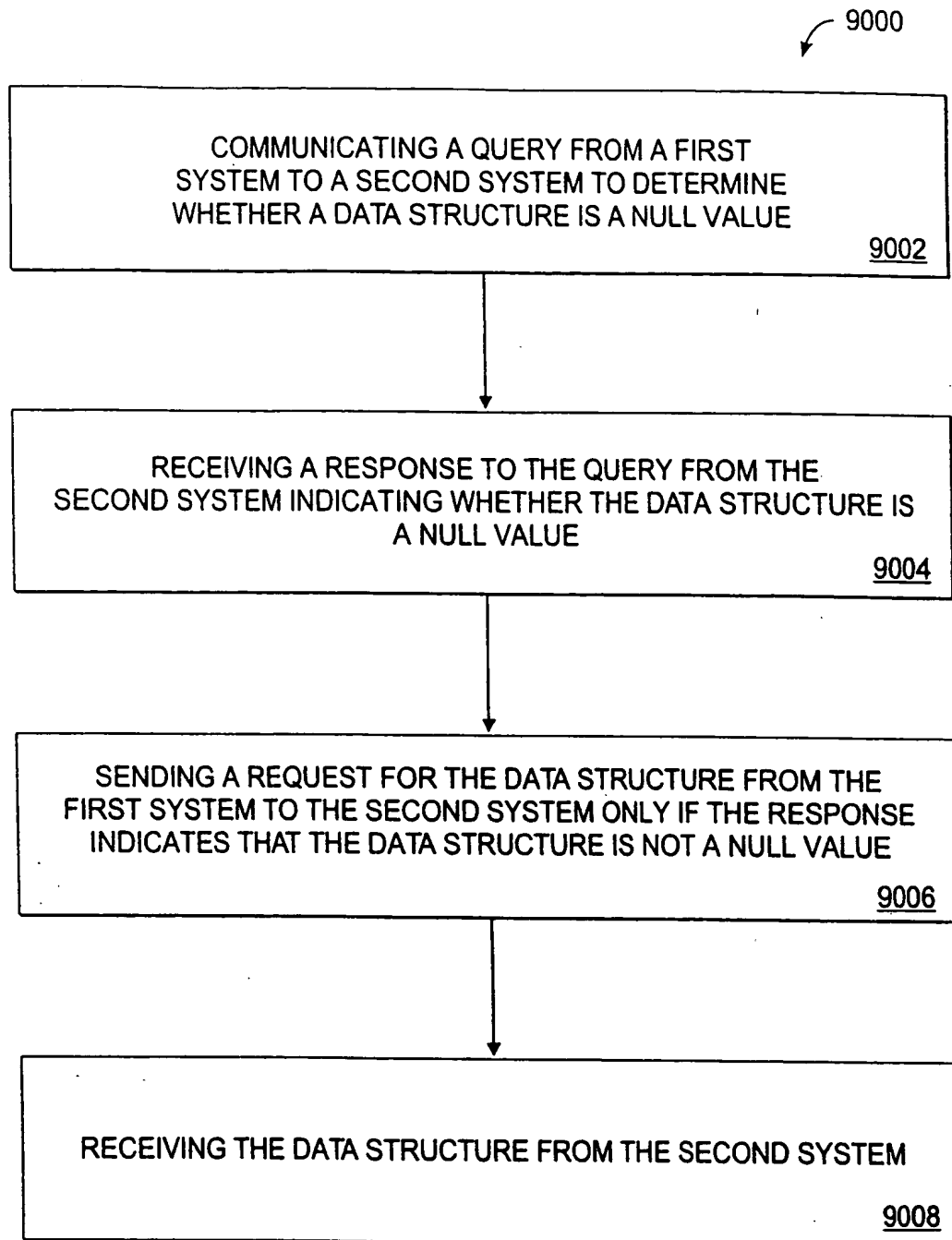
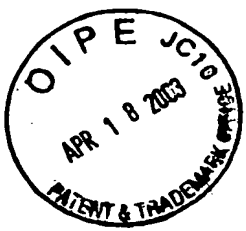


Fig. 90

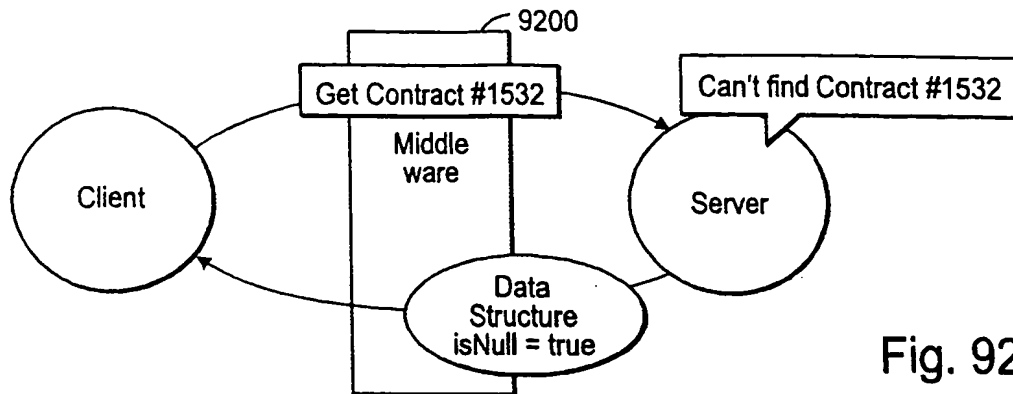


Fig. 92

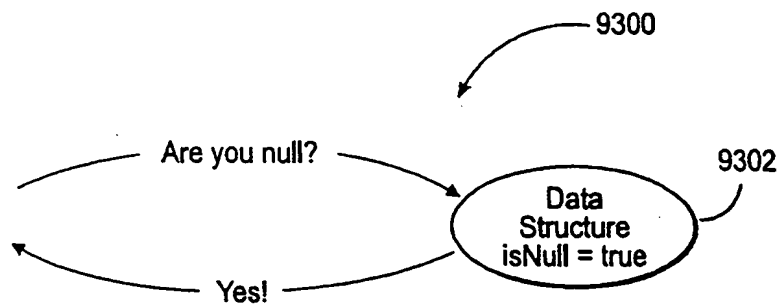


Fig. 93

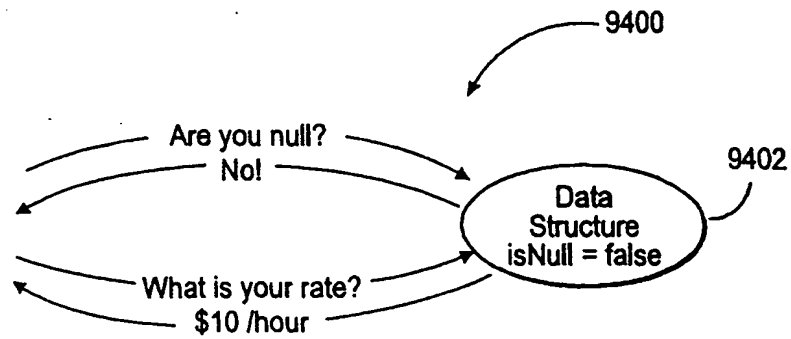


Fig. 94

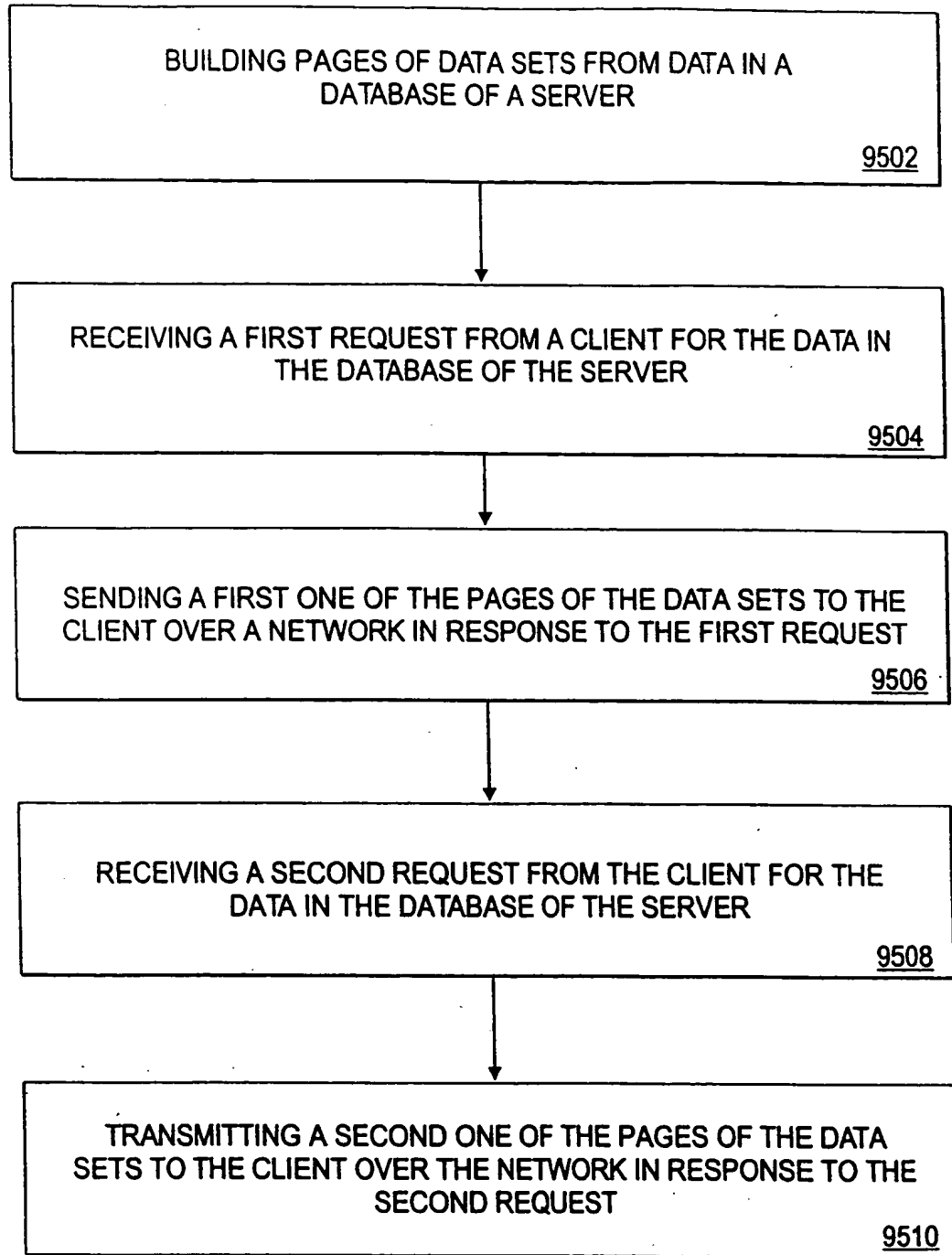
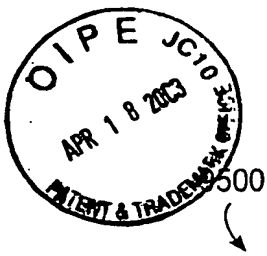


Fig. 95

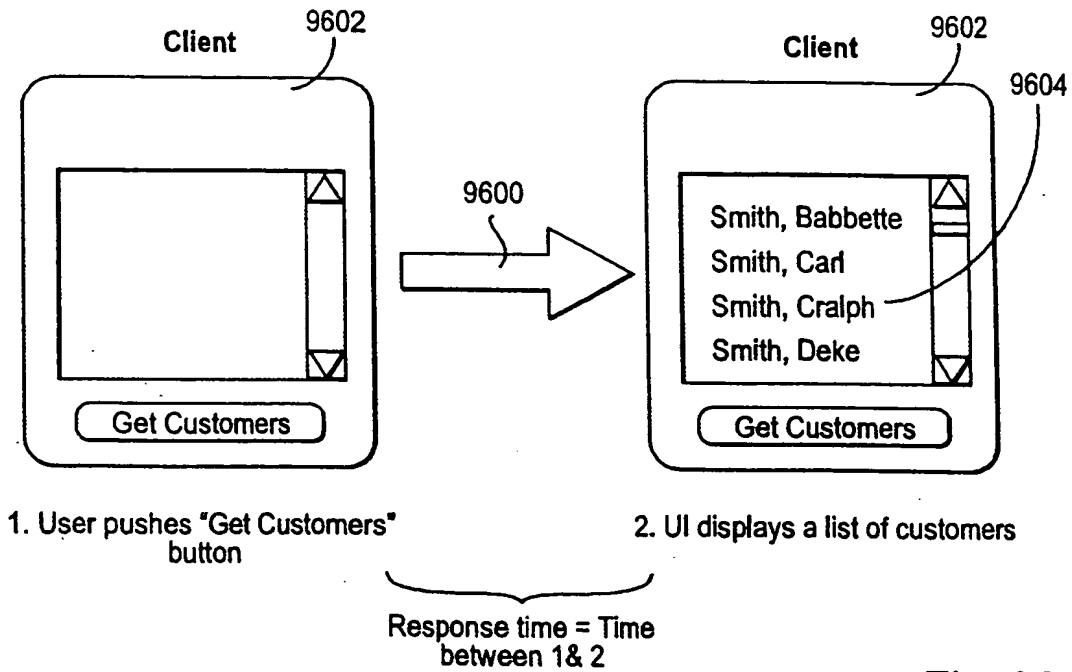
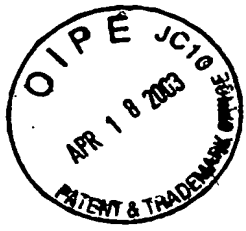


Fig. 96

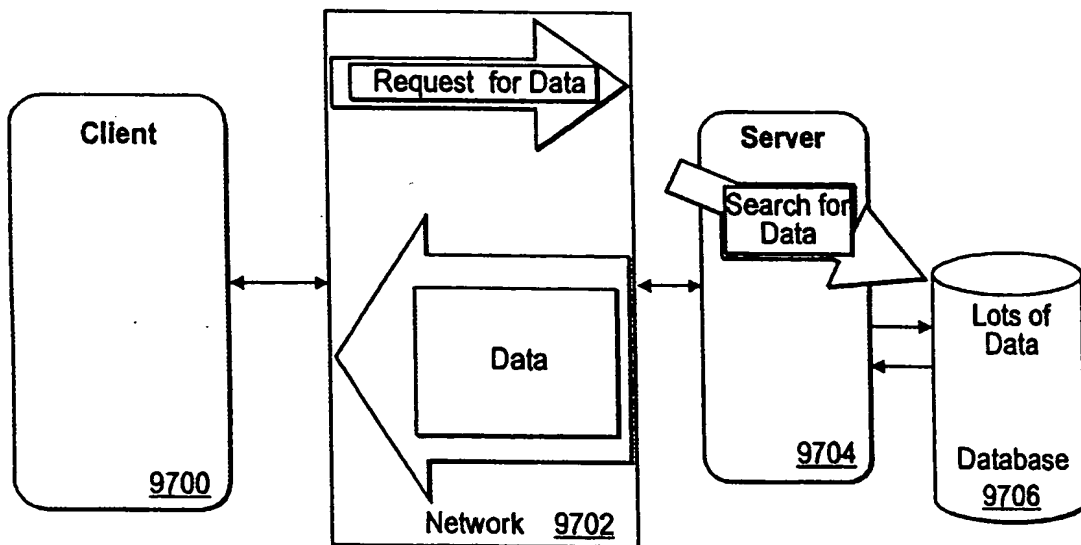


Fig. 97

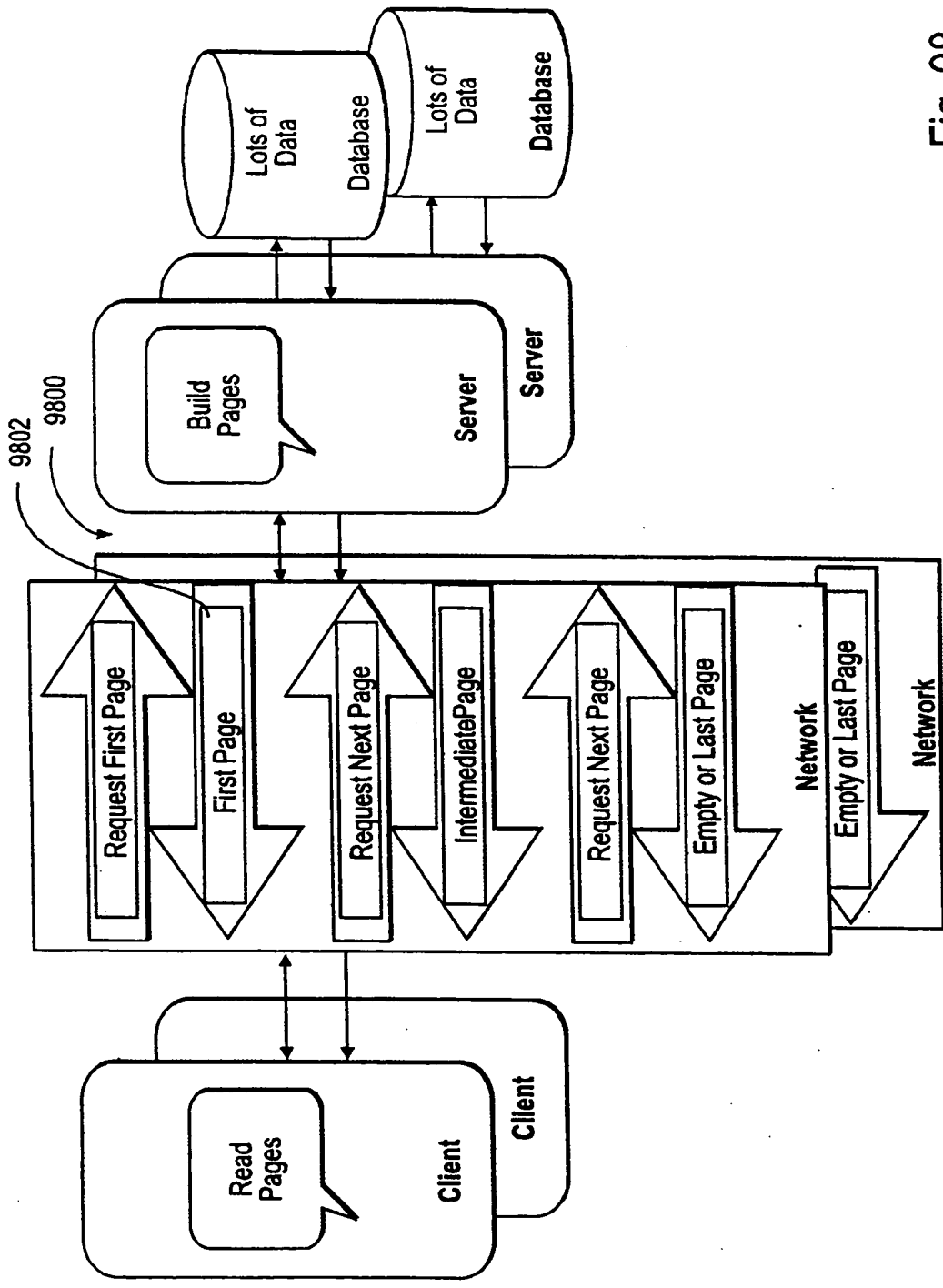
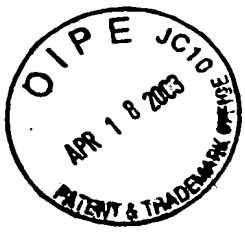


Fig. 98

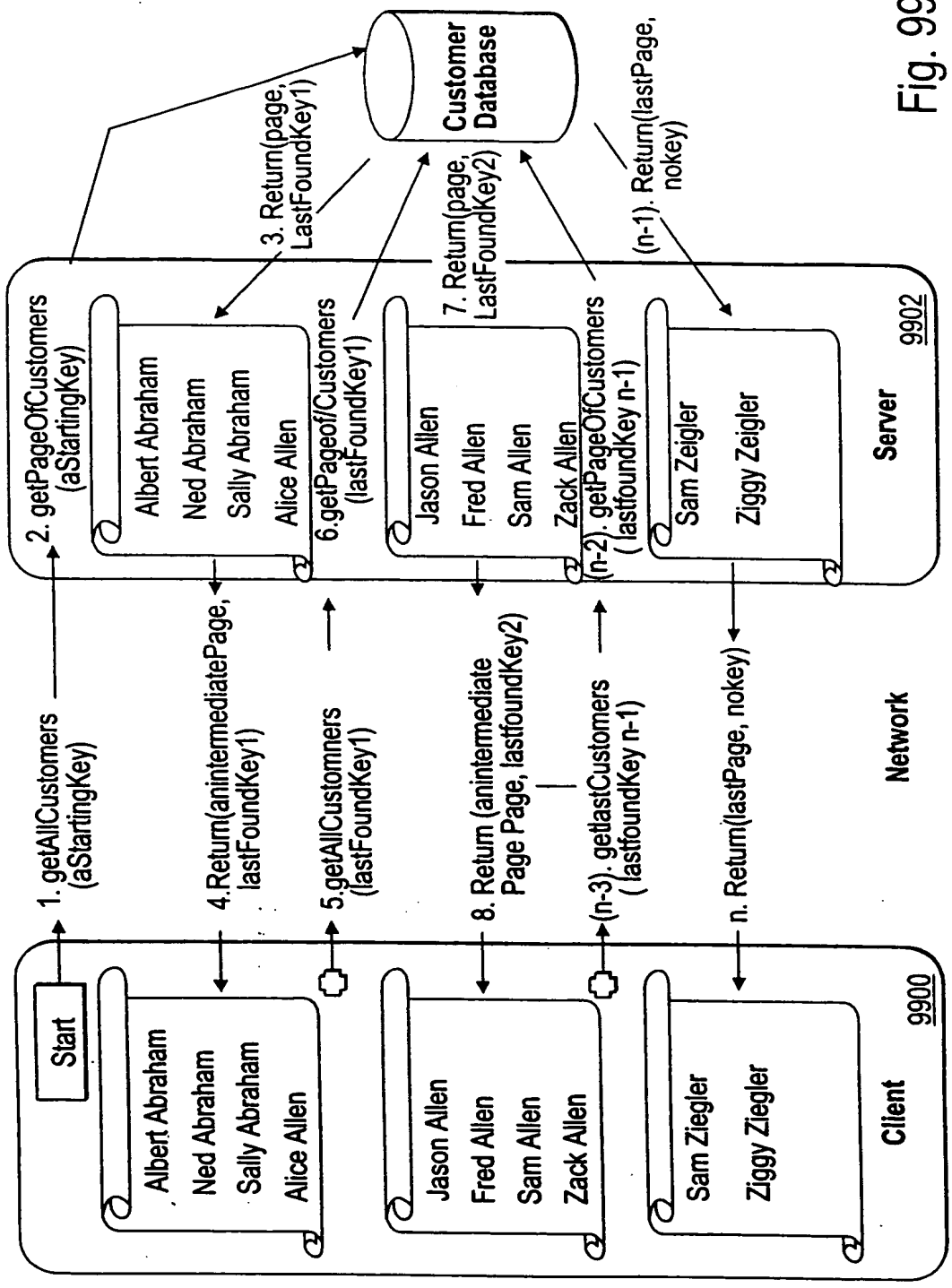
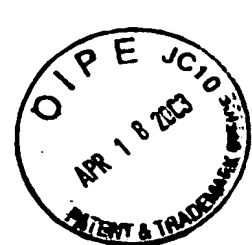


Fig. 99



10000

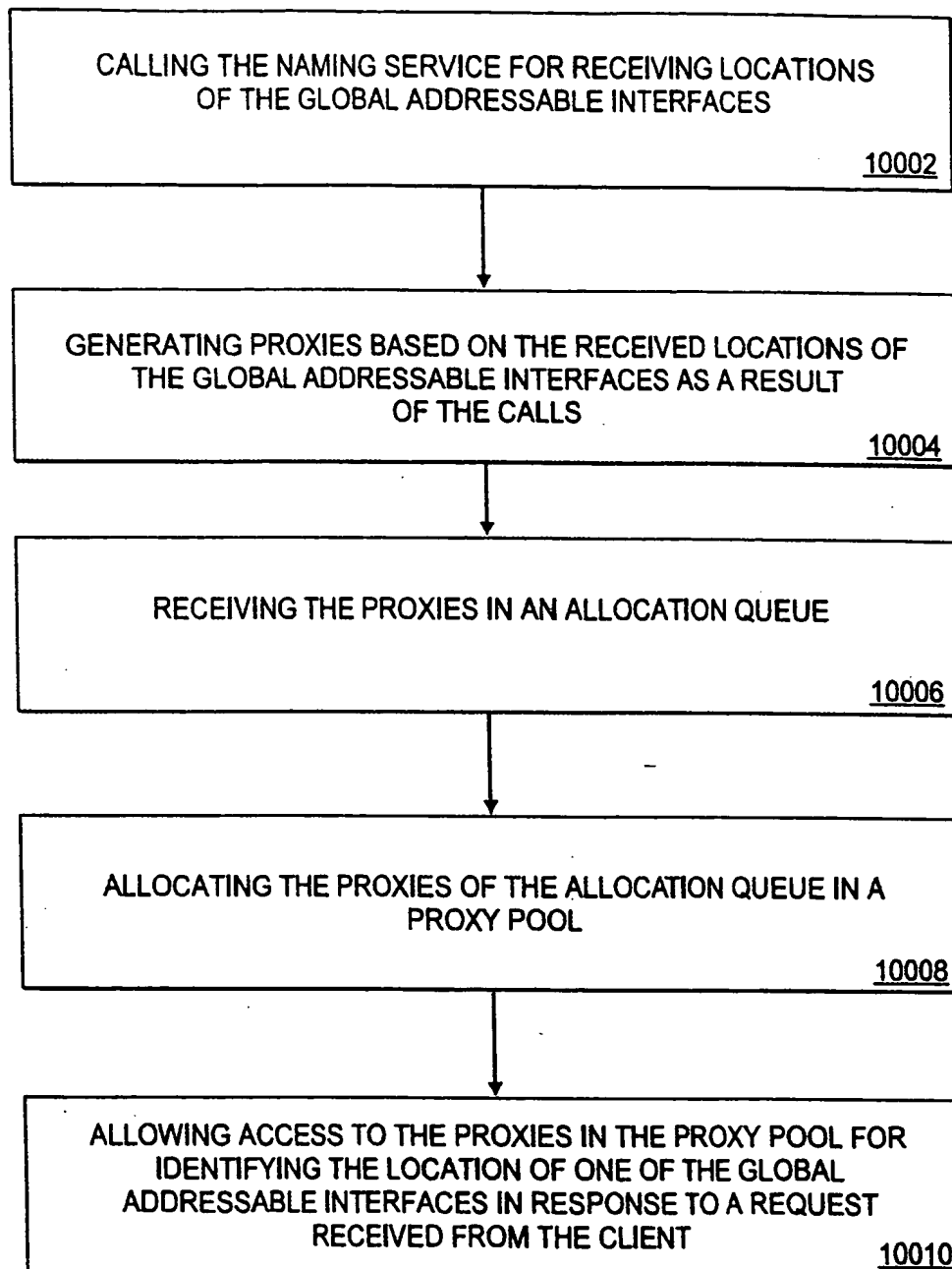


Fig. 100

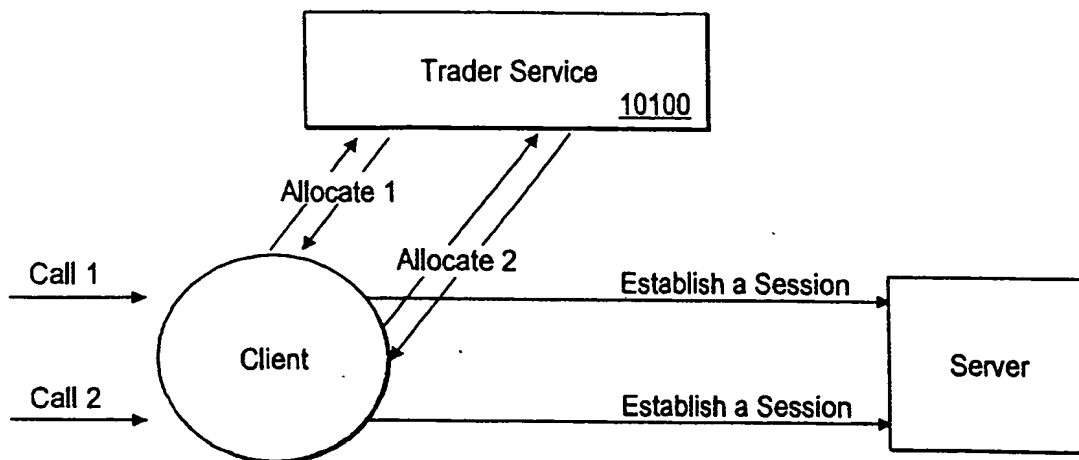


Fig. 101

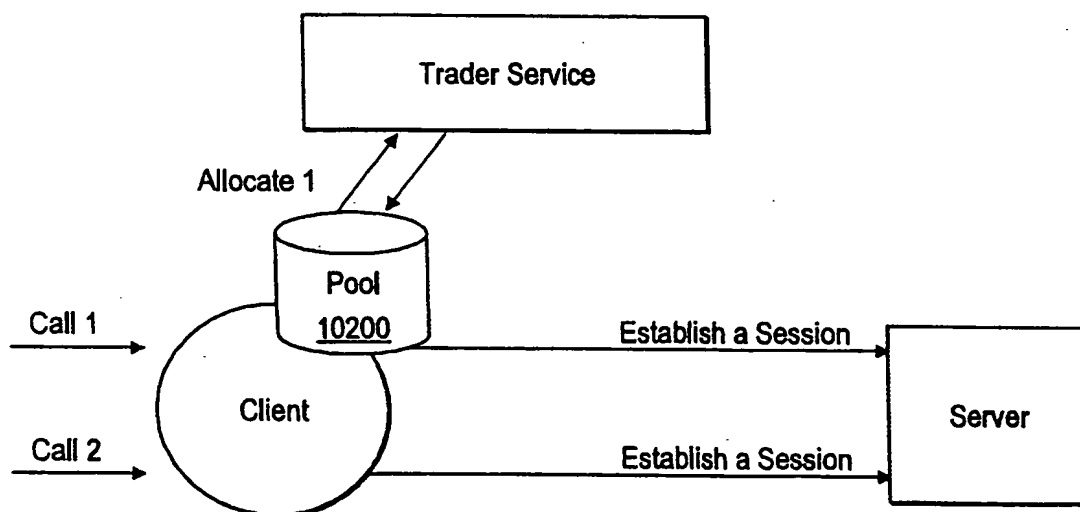


Fig. 102

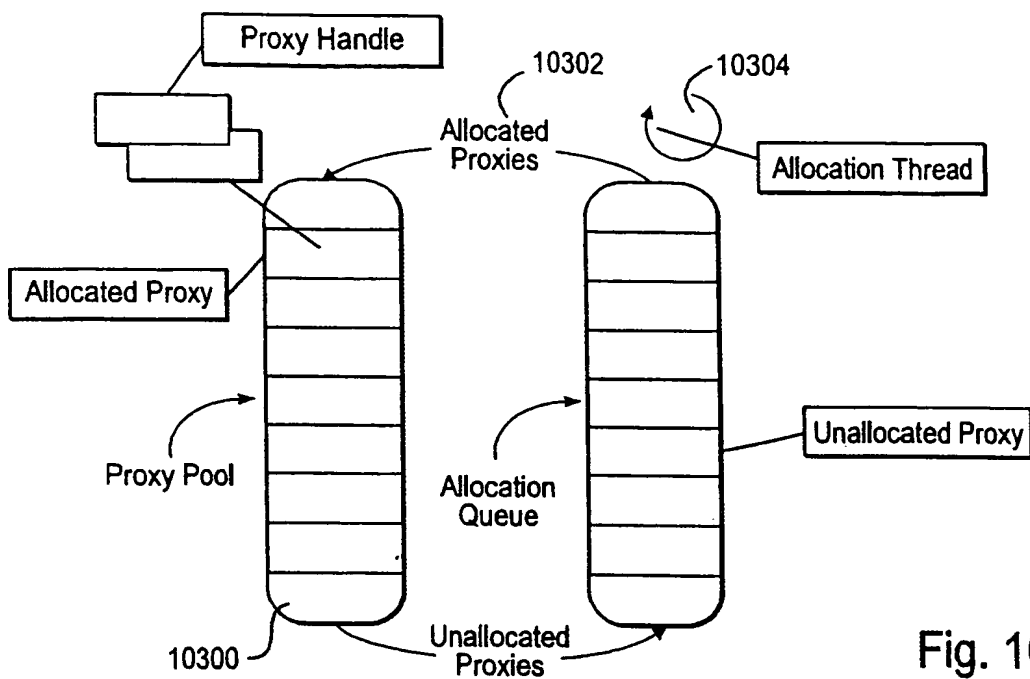


Fig. 103

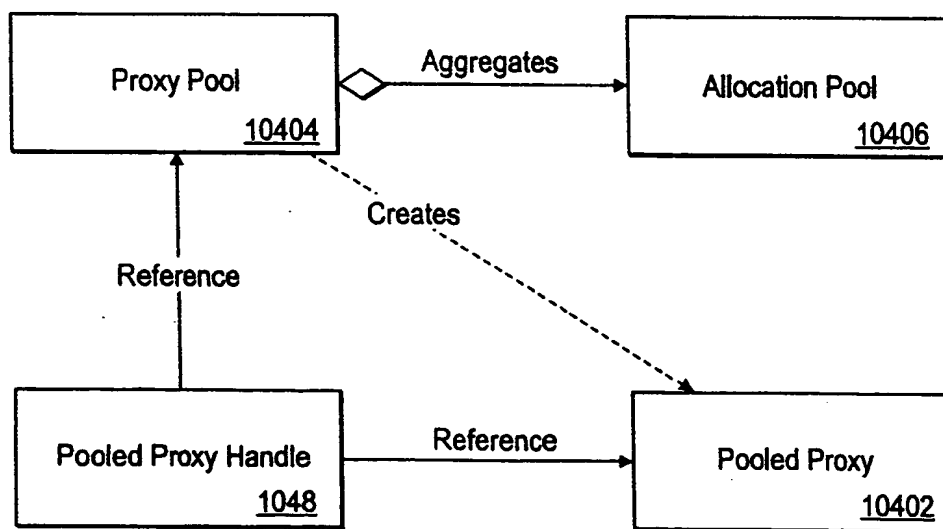
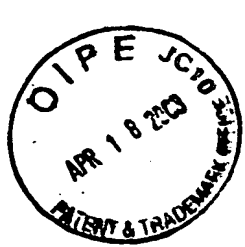


Fig. 104



10500

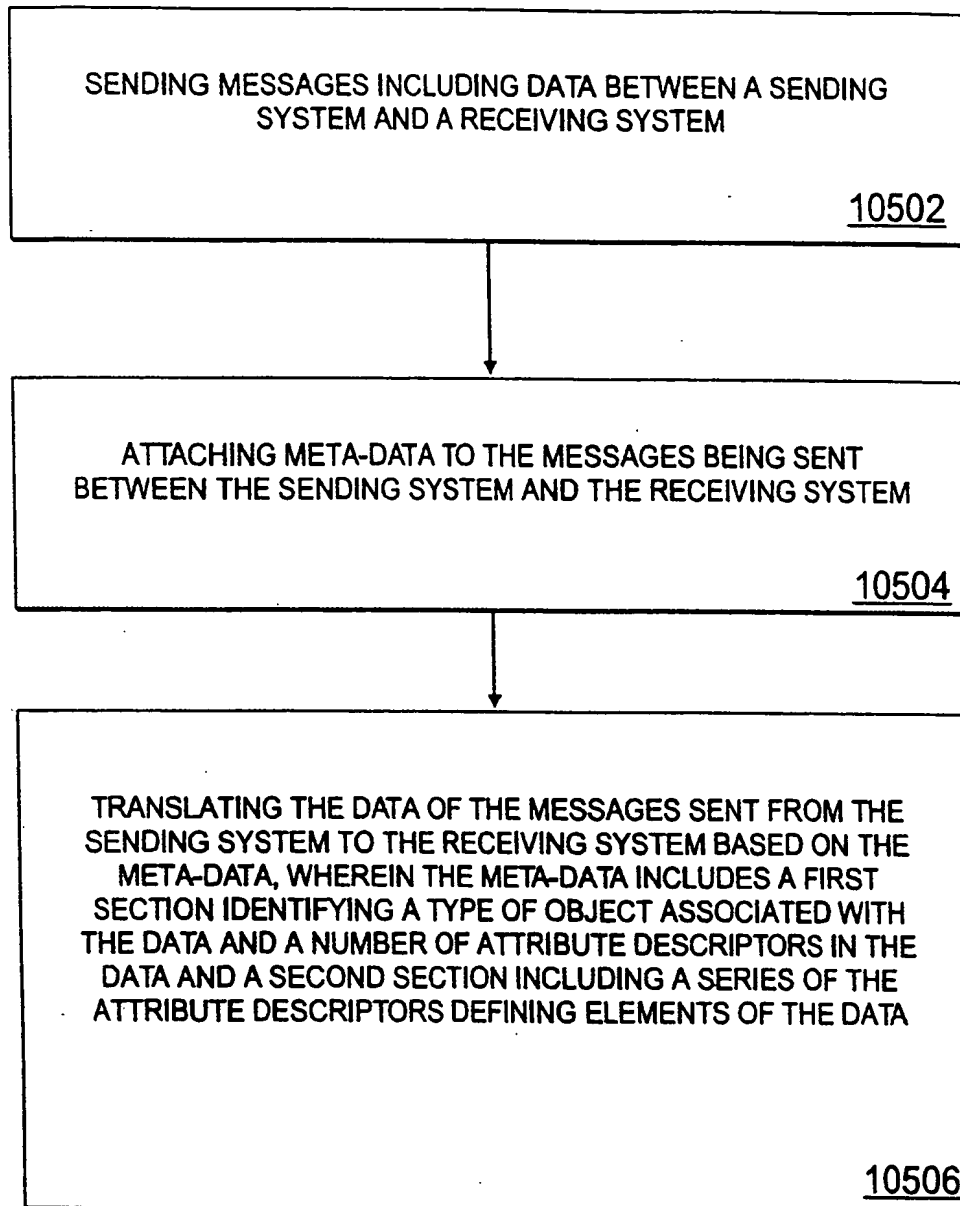


Fig. 105

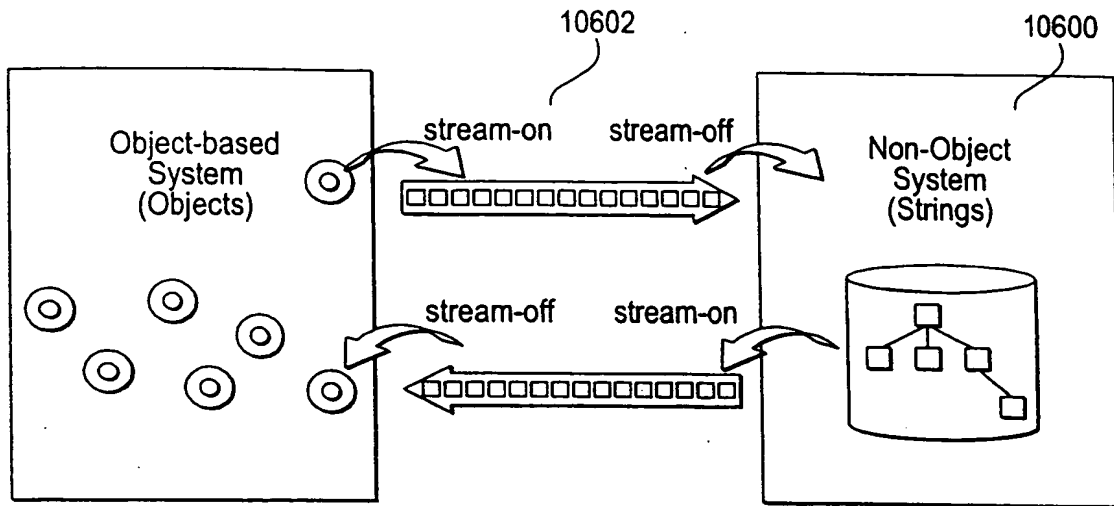


Fig. 106

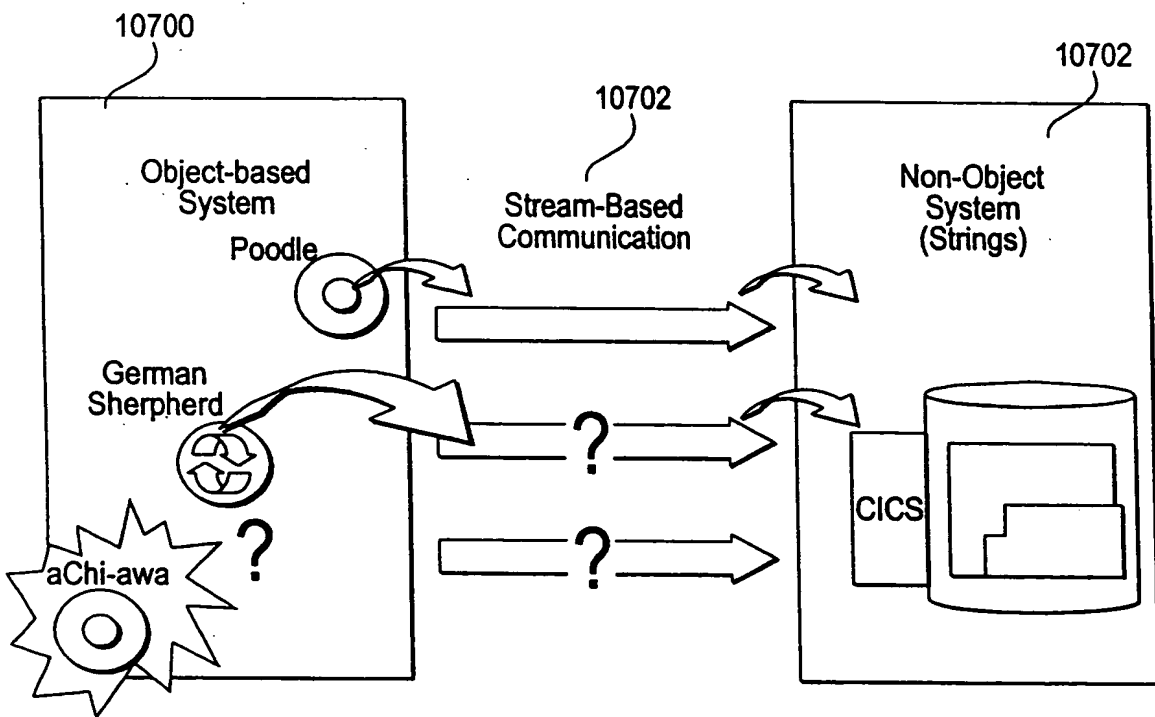


Fig. 107

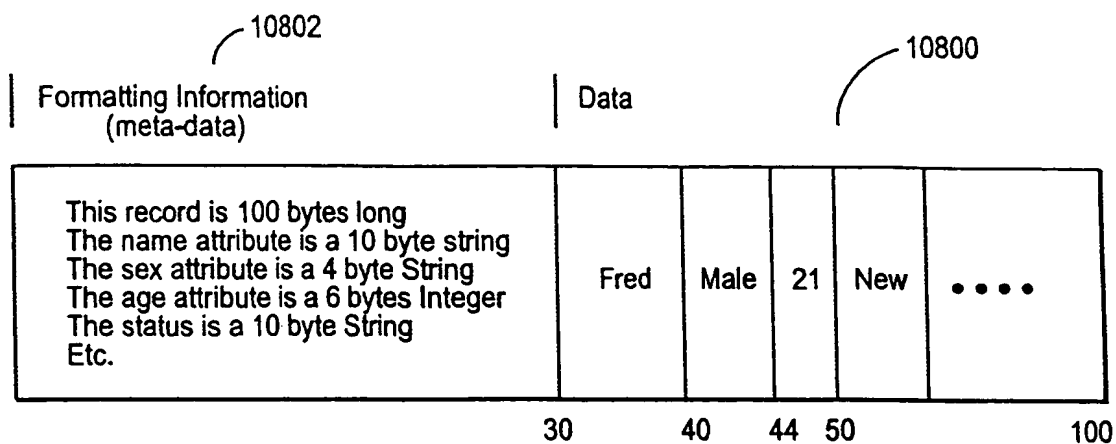
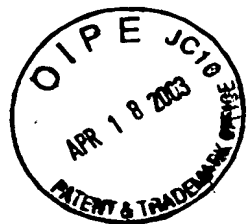


Fig. 108

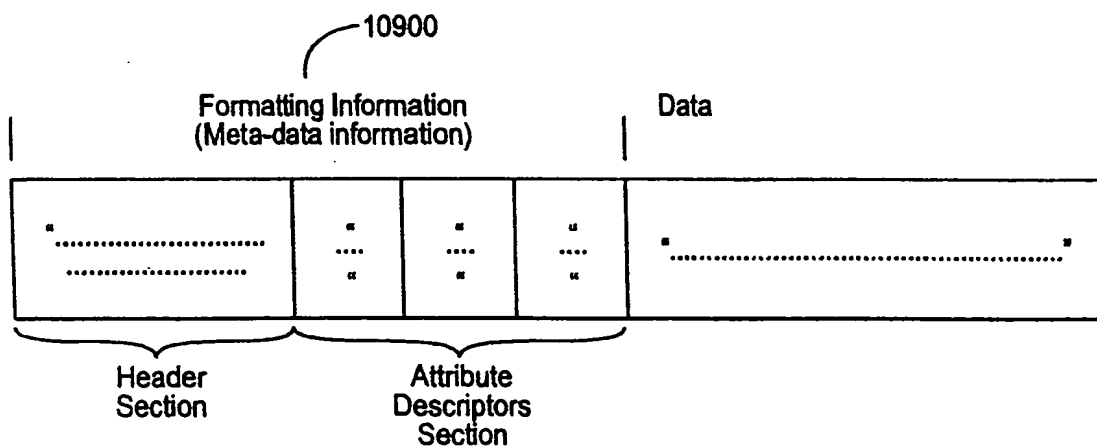


Fig. 109

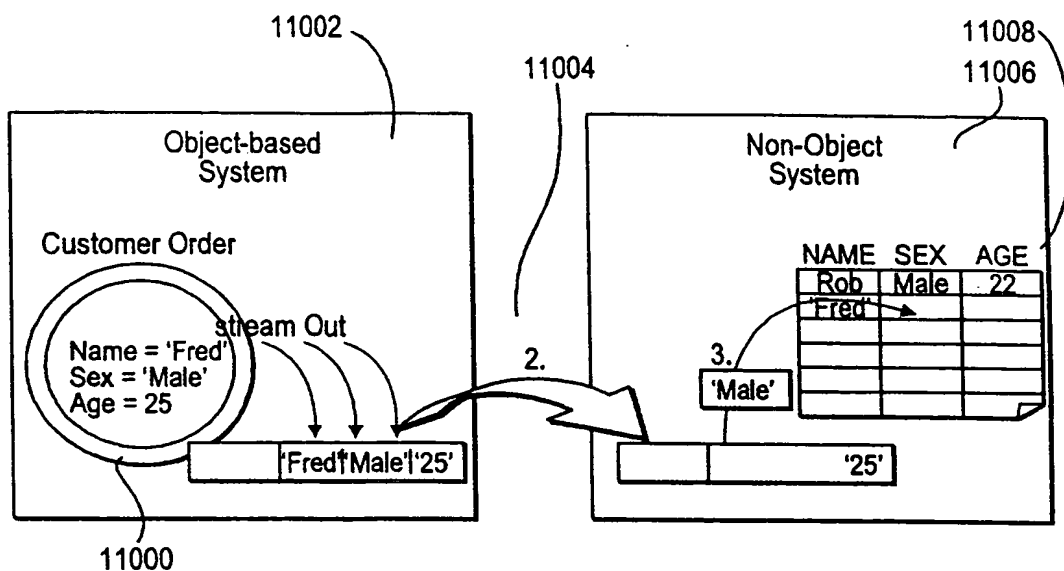


Fig. 110

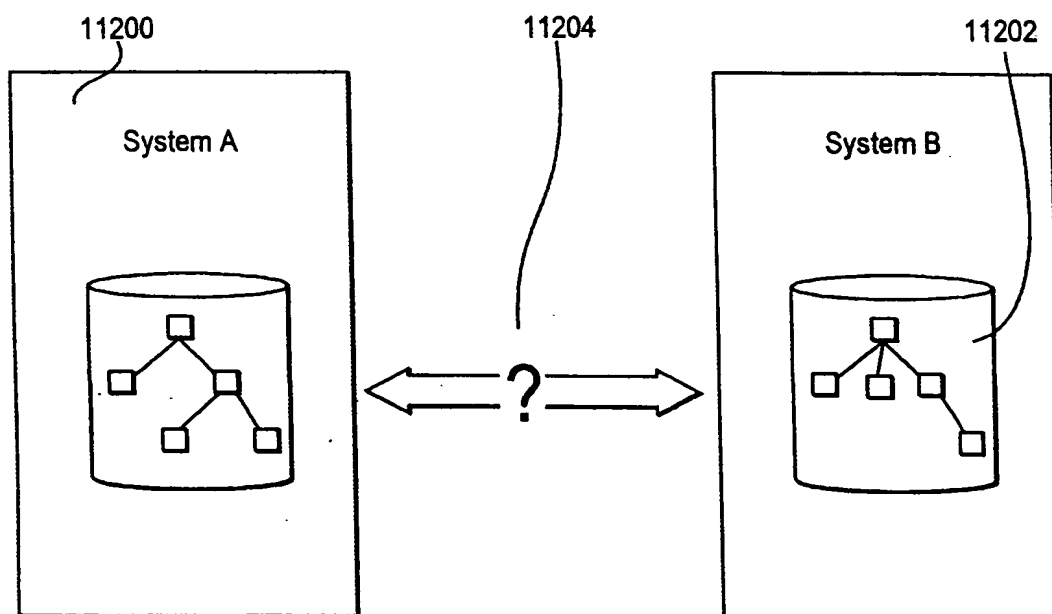
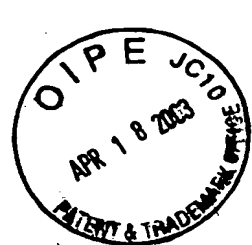


Fig. 112



11100

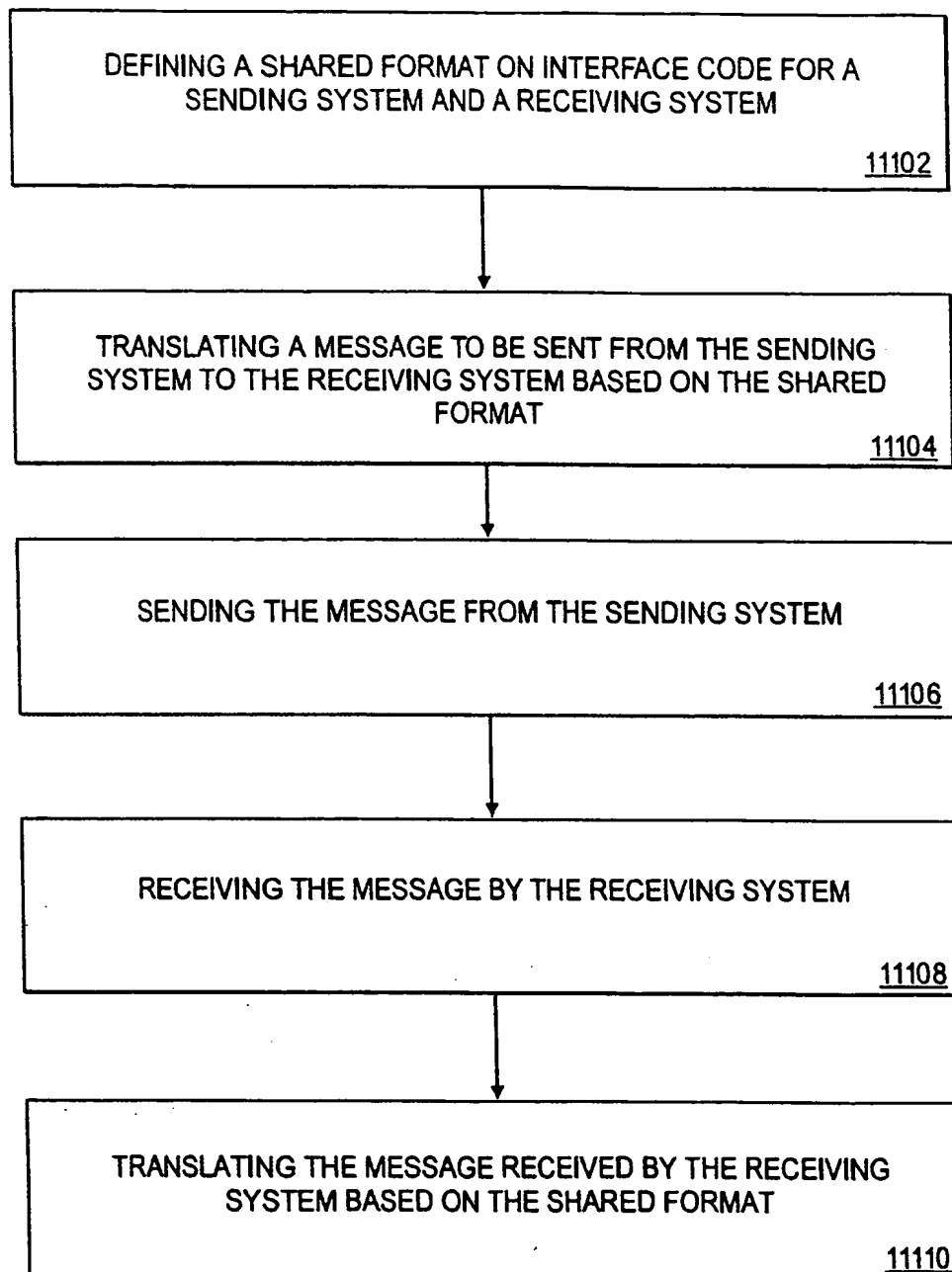


Fig. 111

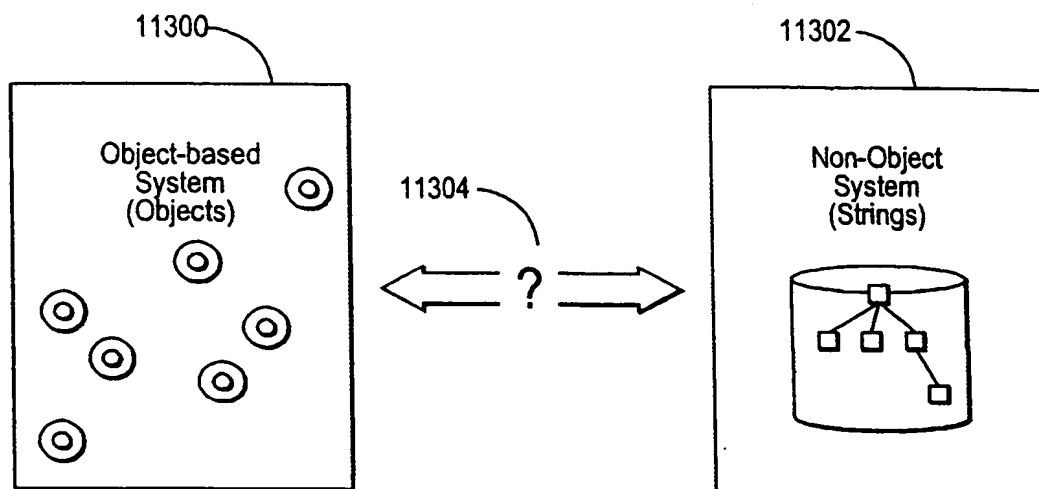


Fig. 113

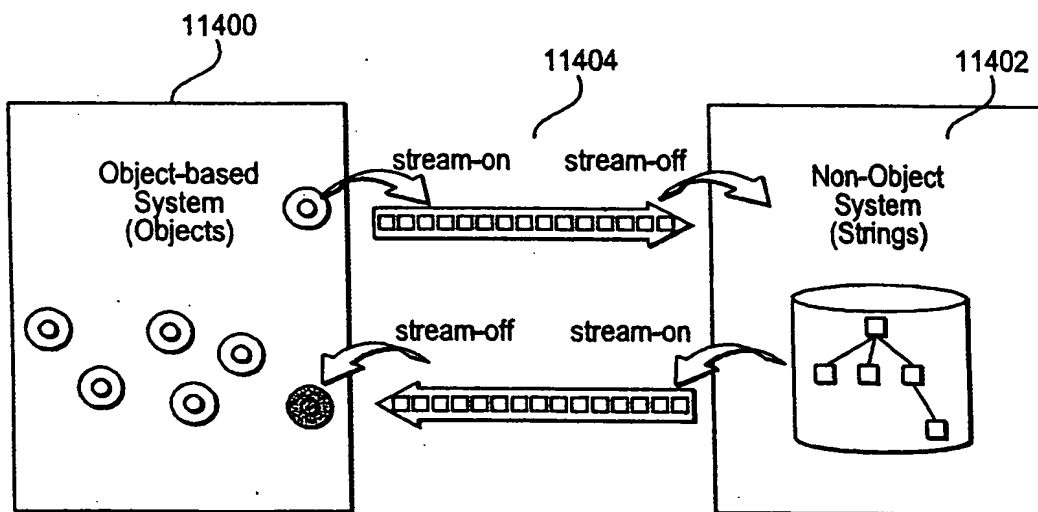


Fig. 114

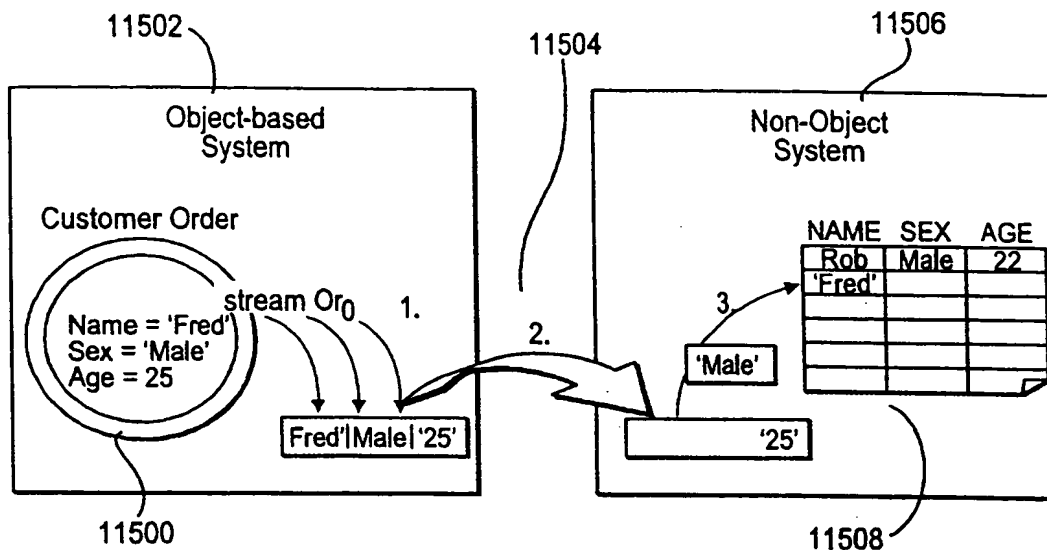


Fig. 115

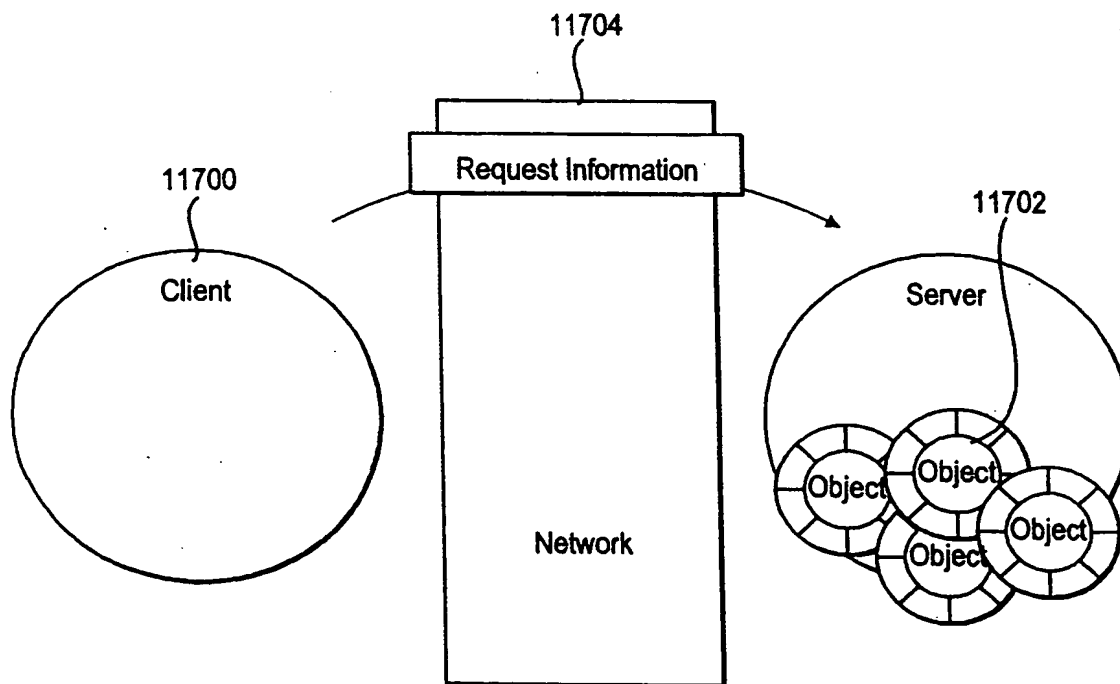
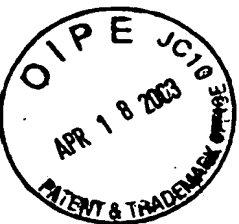


Fig. 117



11600

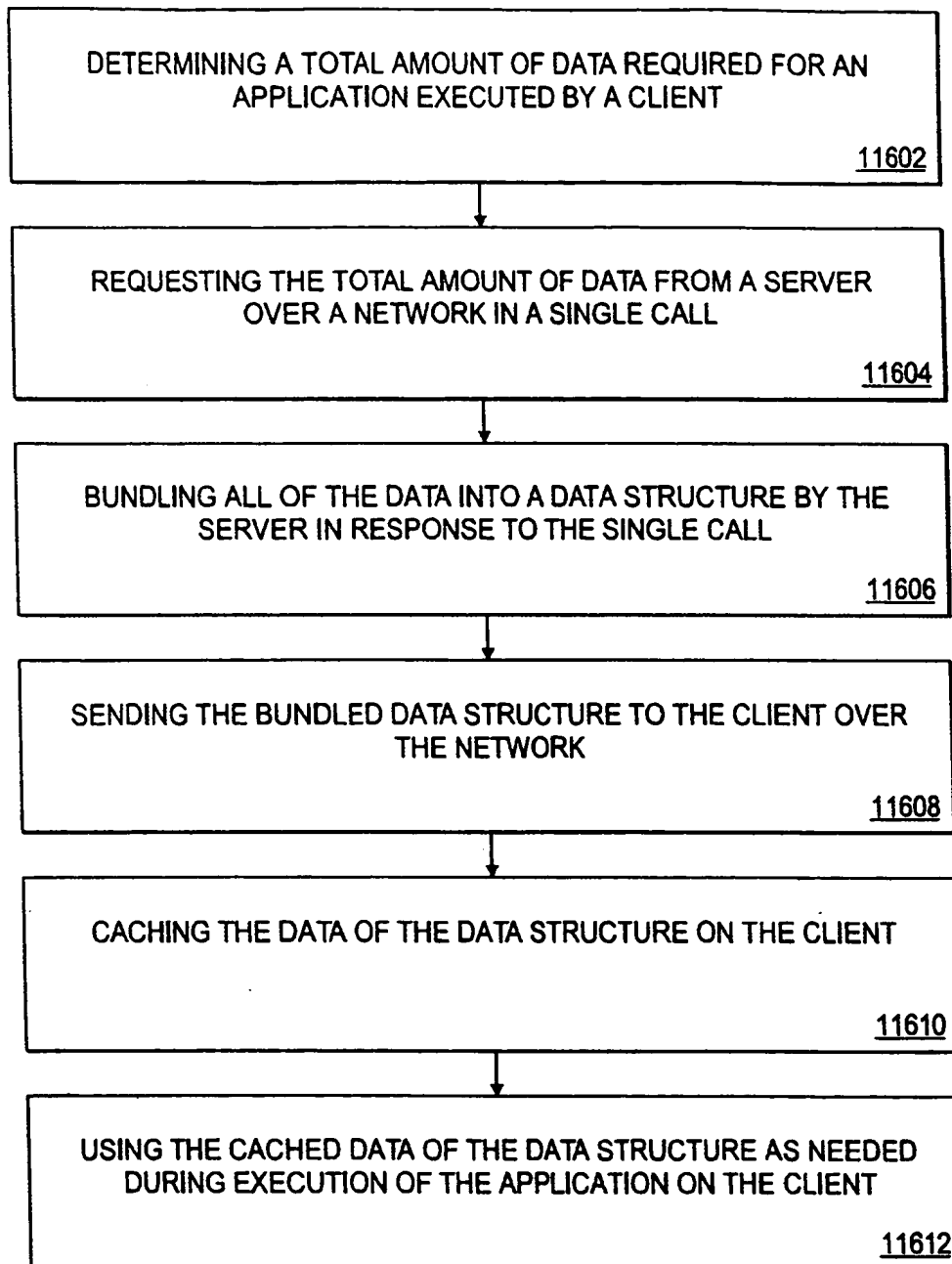


Fig. 116

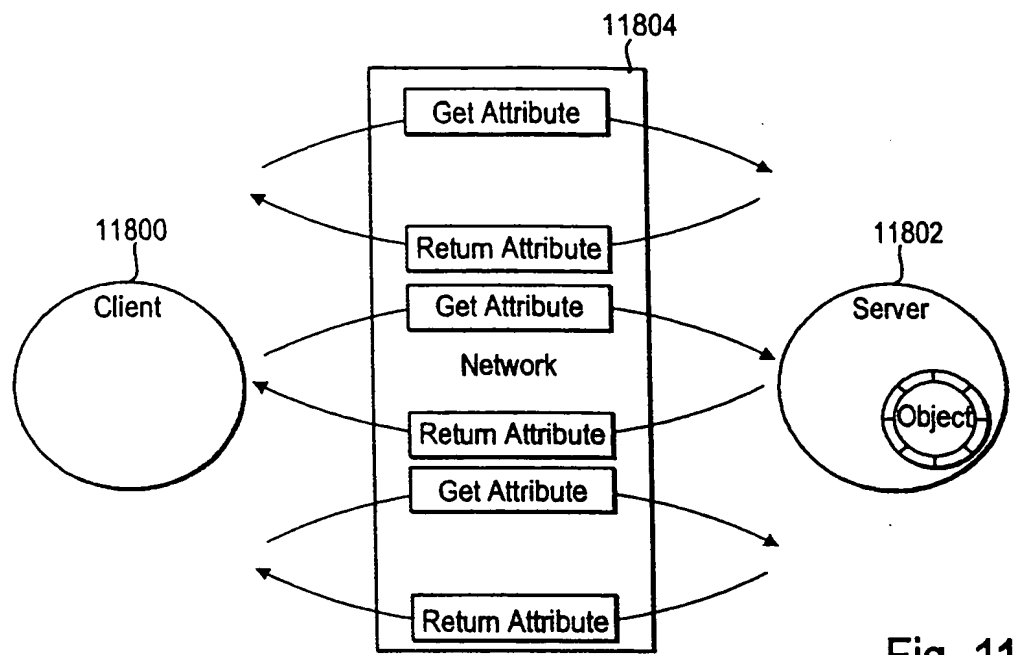


Fig. 118

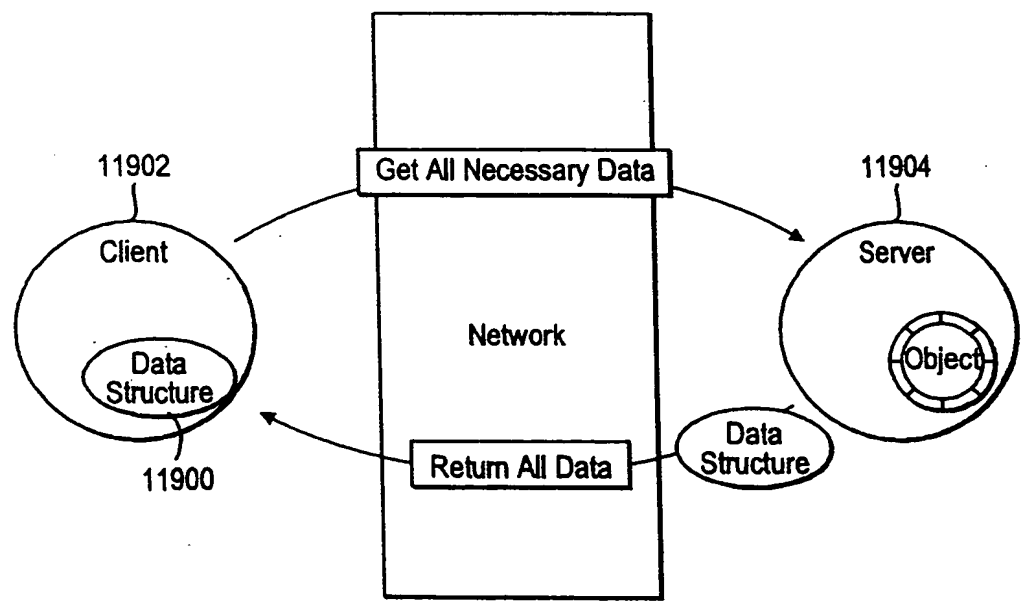


Fig. 119

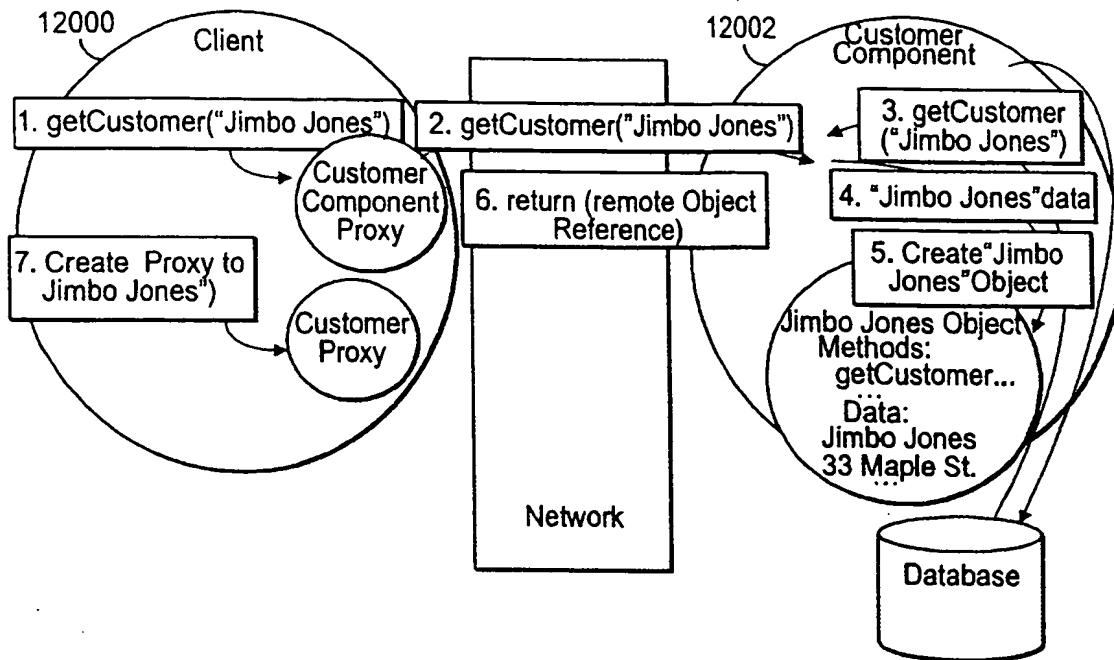


Fig. 120

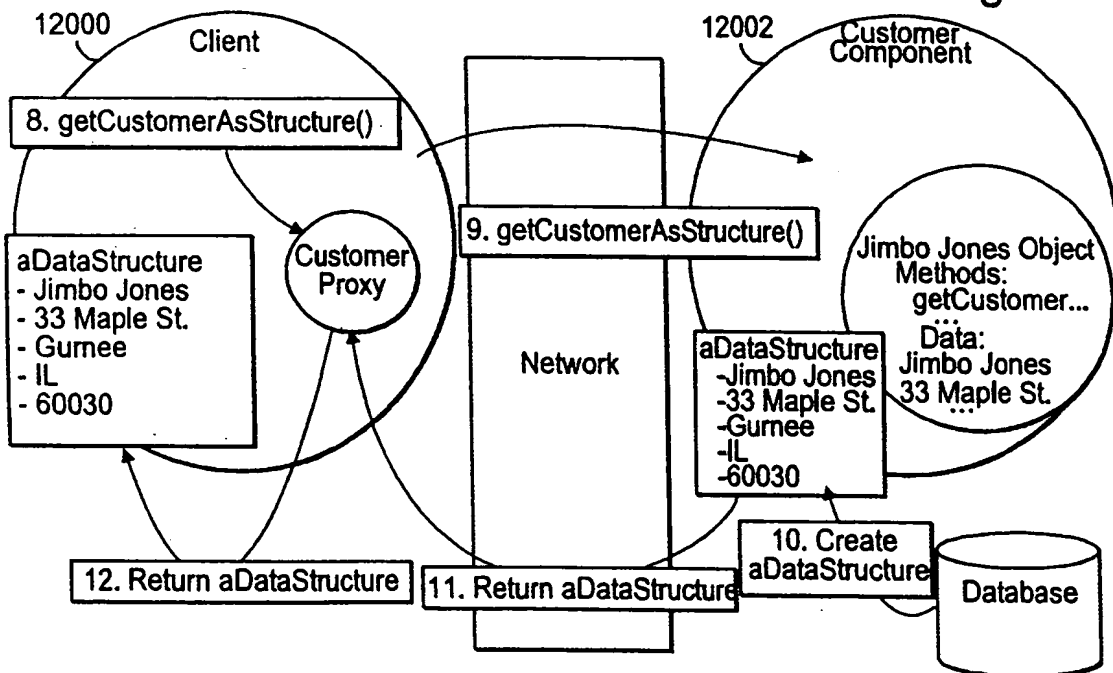


Fig. 121

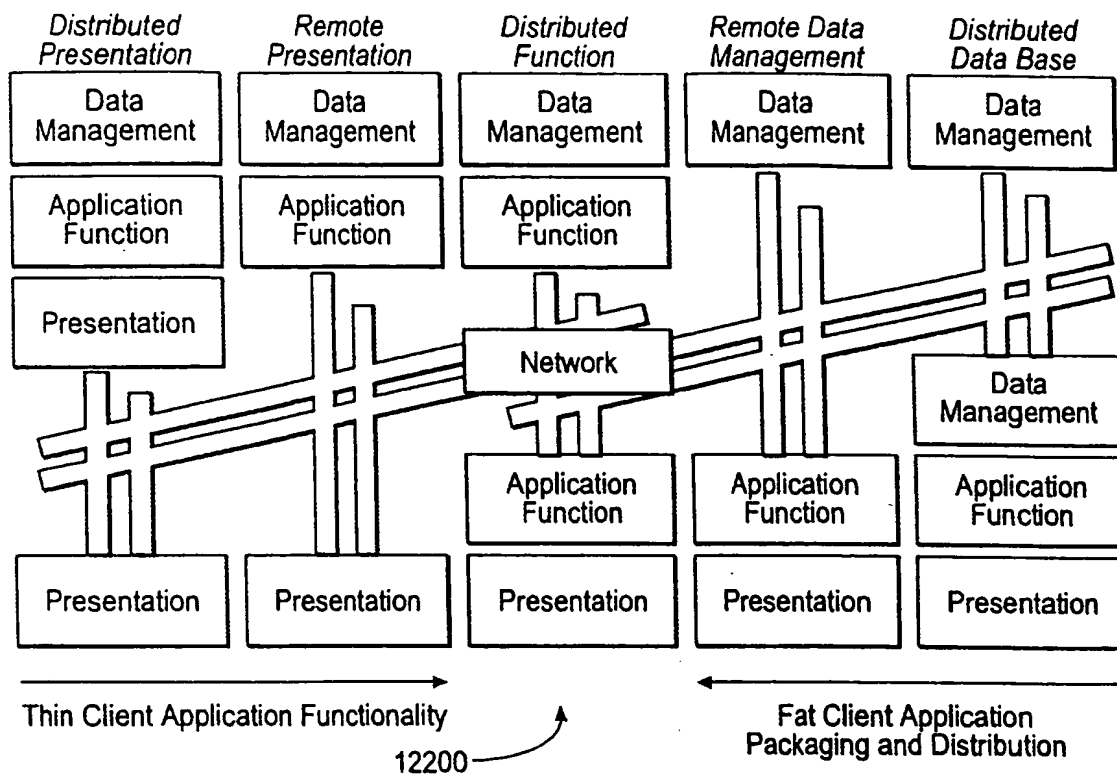
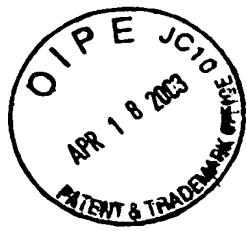


Fig. 122

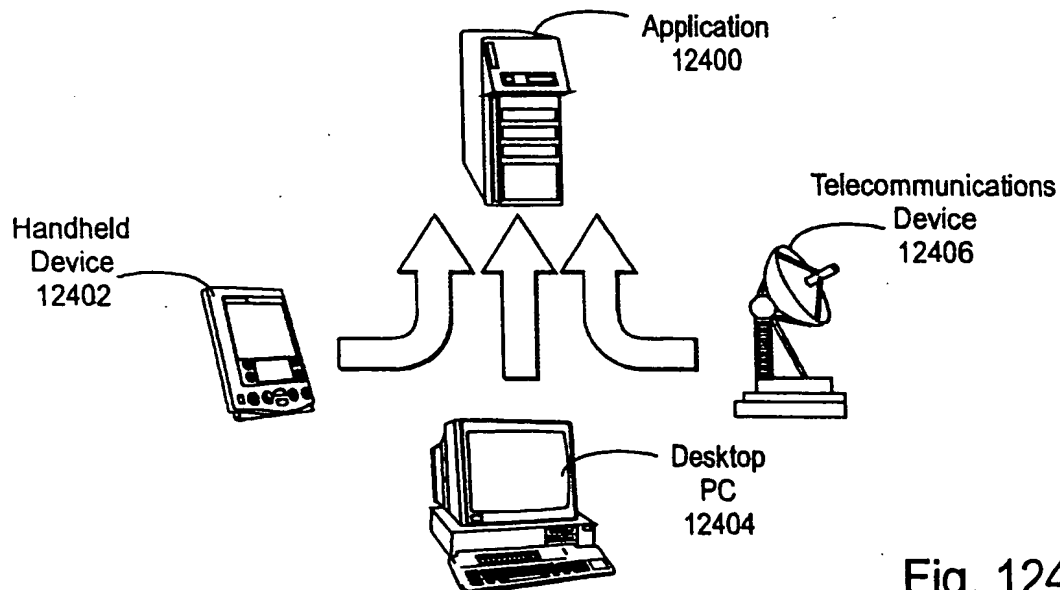
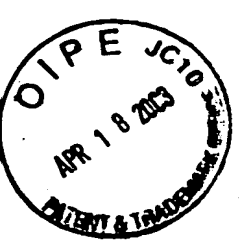


Fig. 124



12300

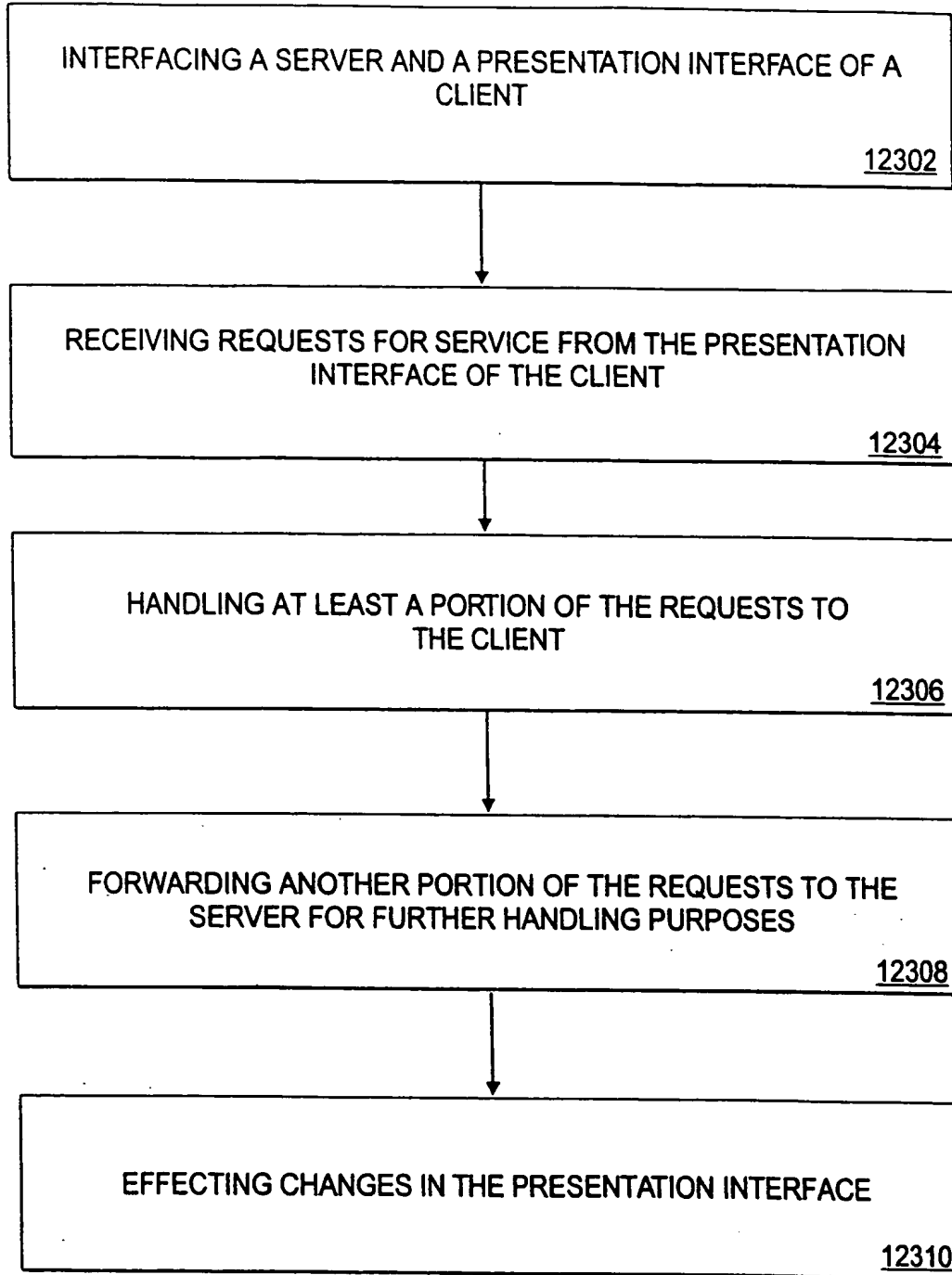


Fig. 123

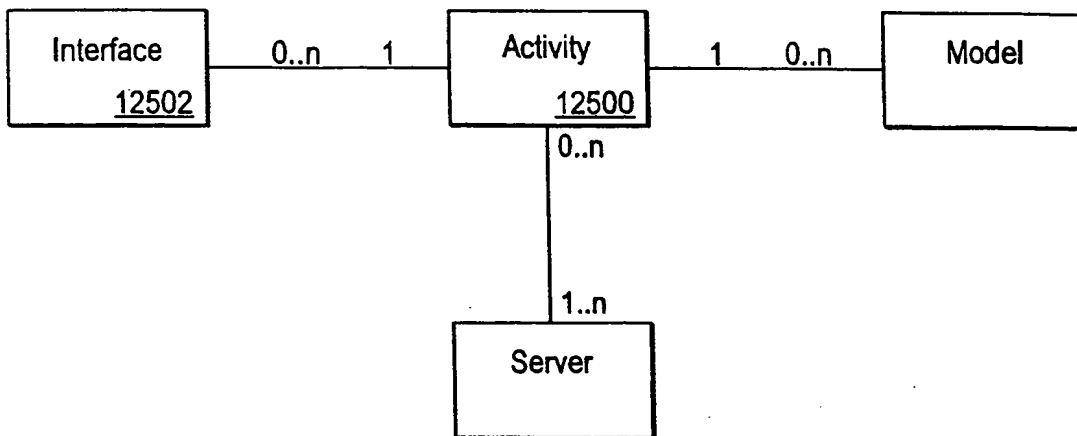


Fig. 125

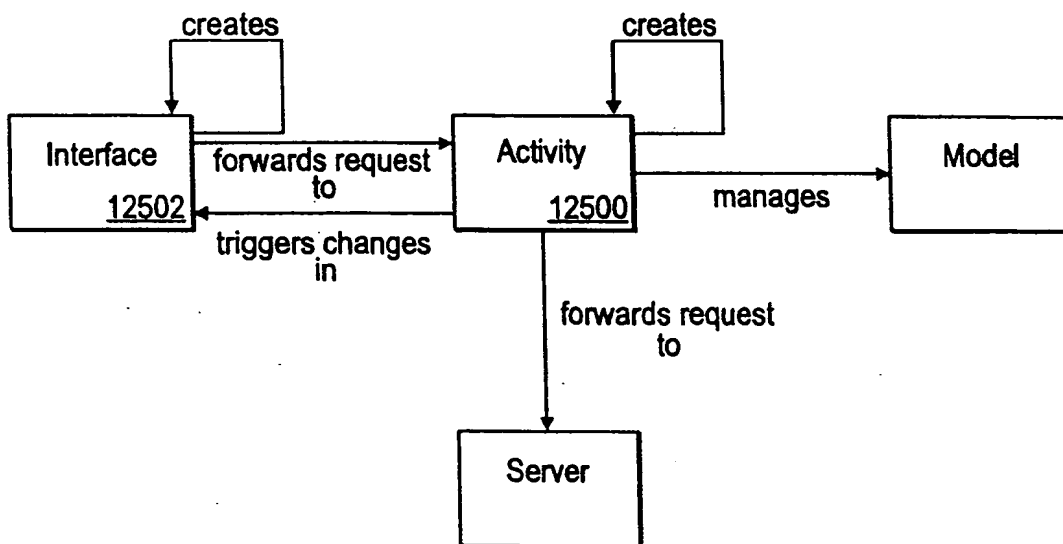


Fig. 126

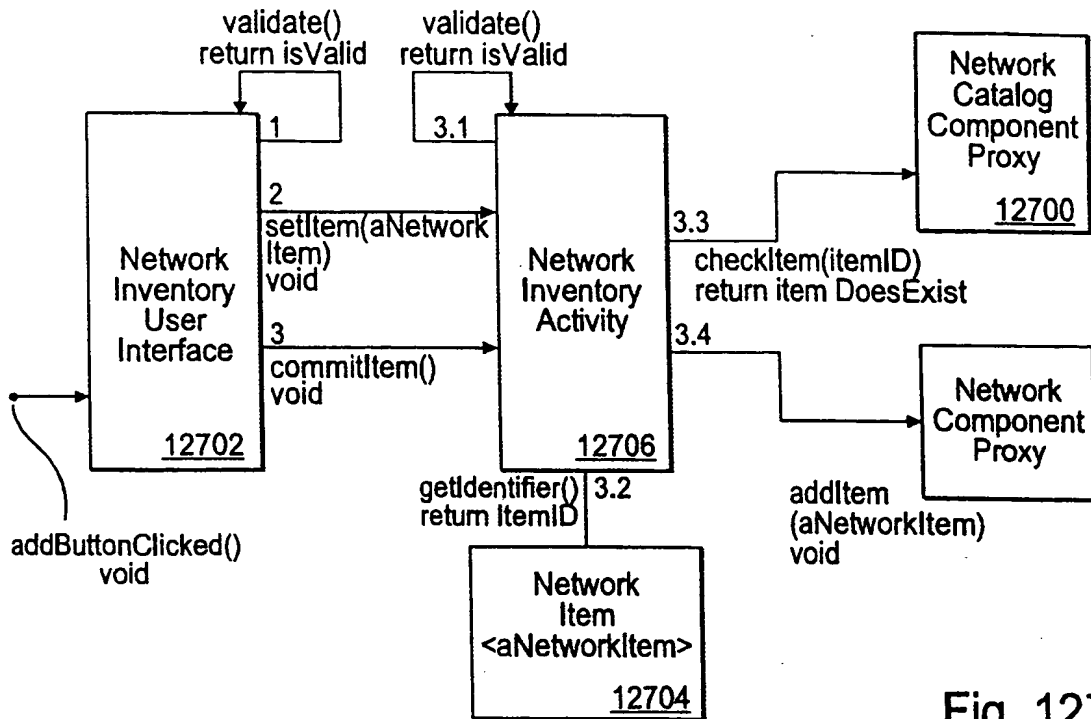


Fig. 127

Data Entry

Name:

SSN:

Type:

Status

☒ Active

☒ Inactive

12900

unconstrained, needs format validation

constrained, doesn't need format validation

Fig. 129

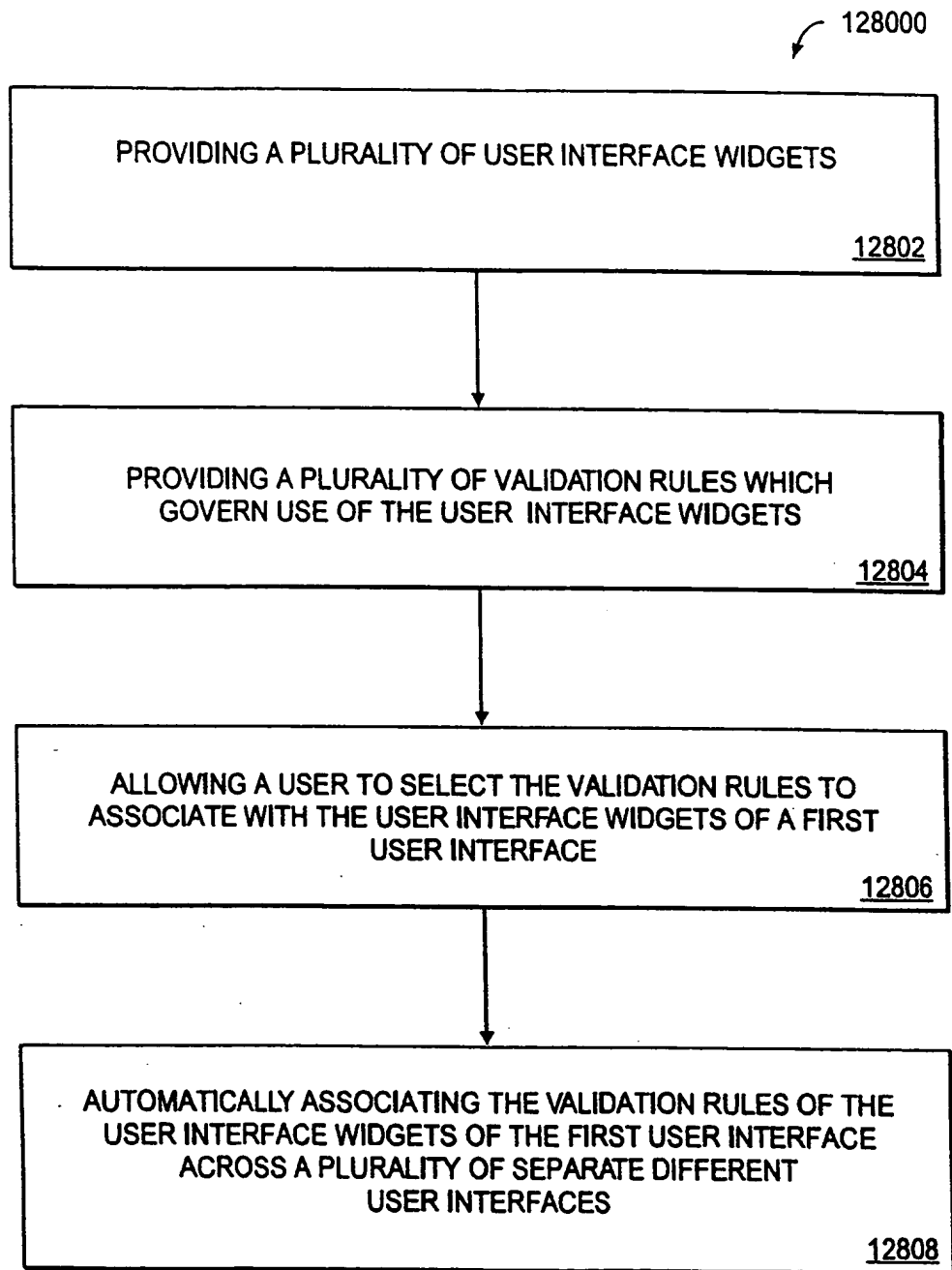


Fig. 128

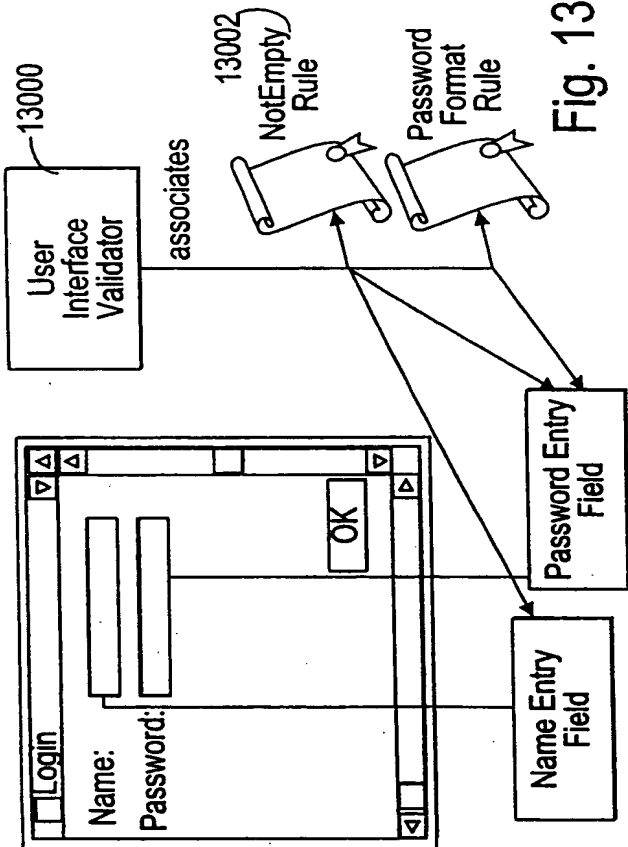


Fig. 130

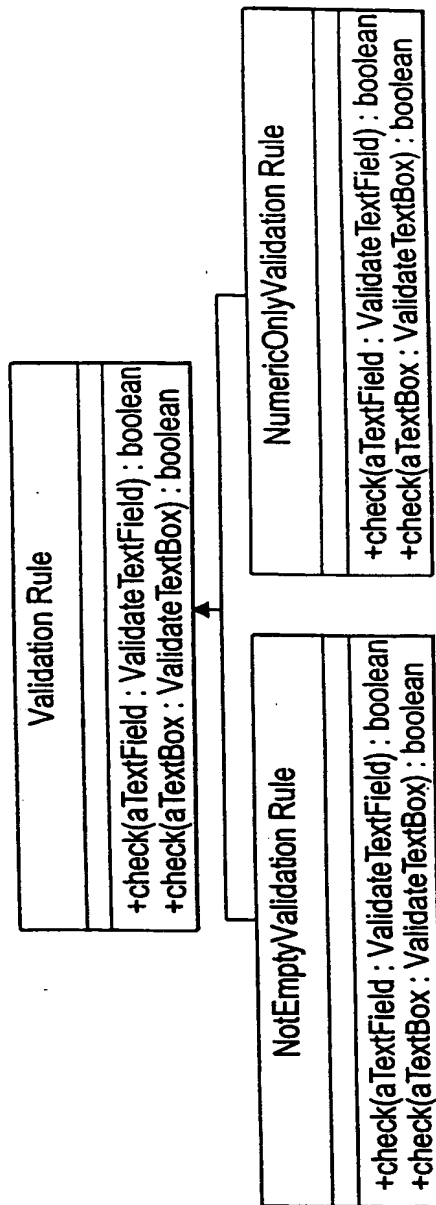


Fig. 131

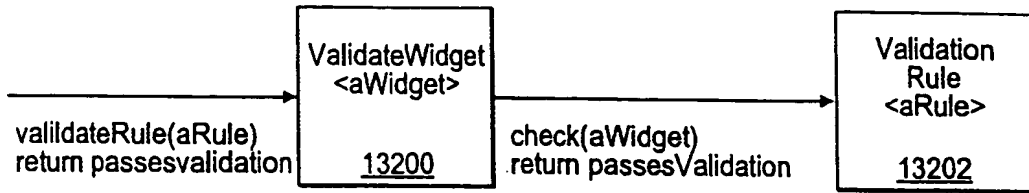


Fig. 132

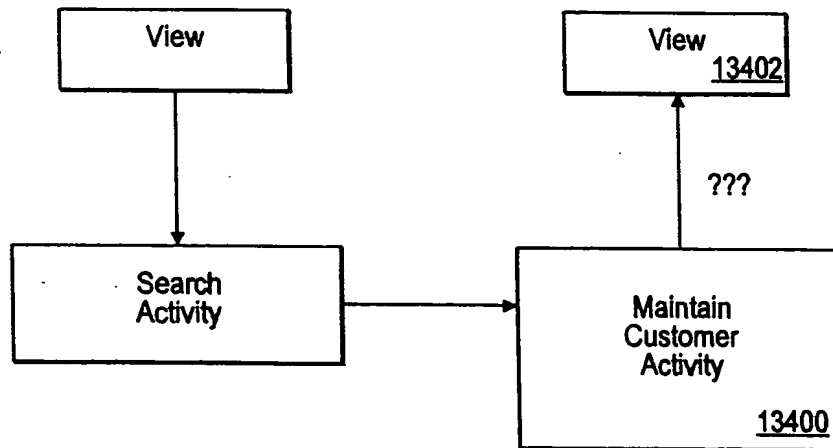


Fig. 134



13300

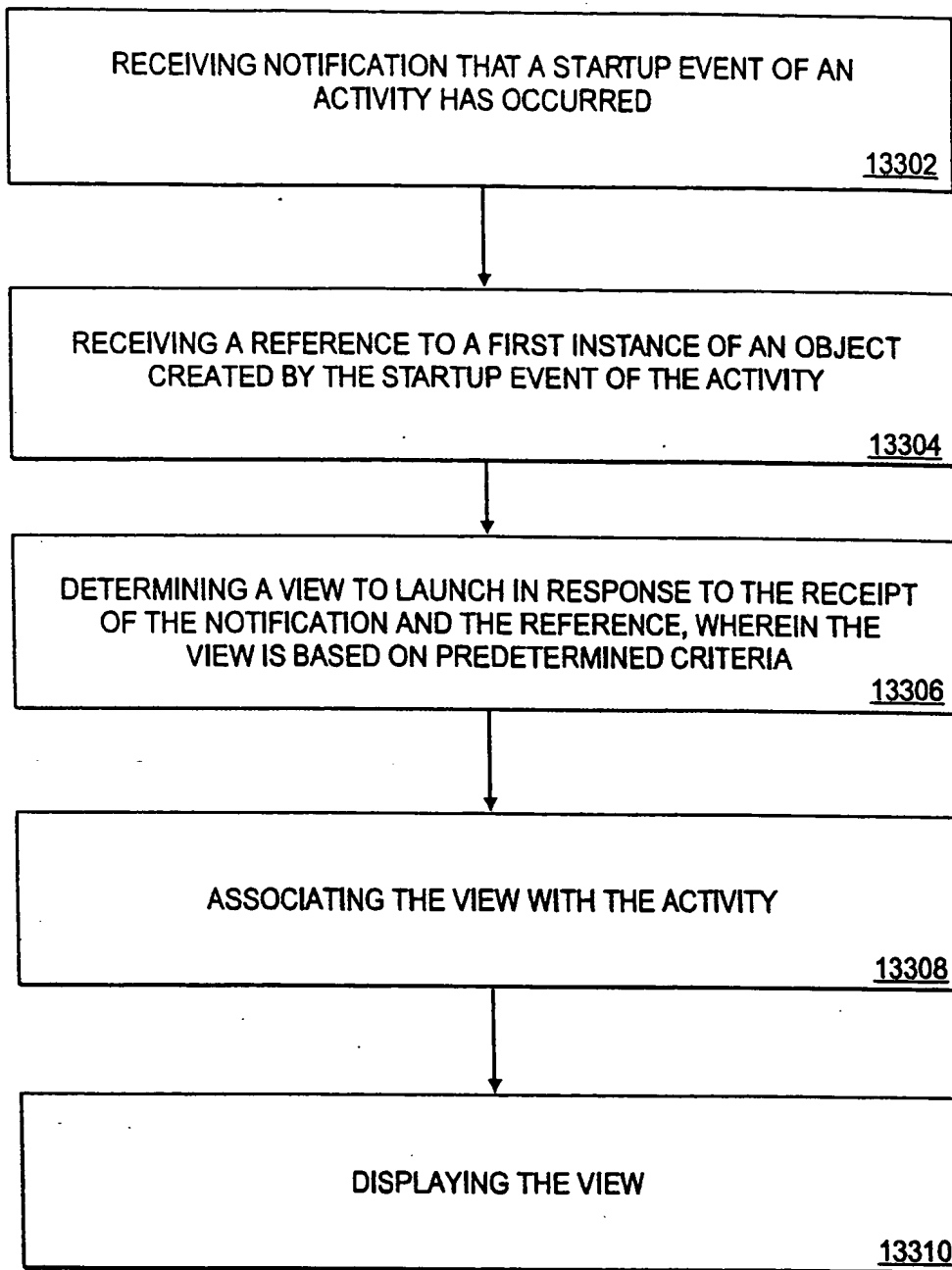


Fig. 133

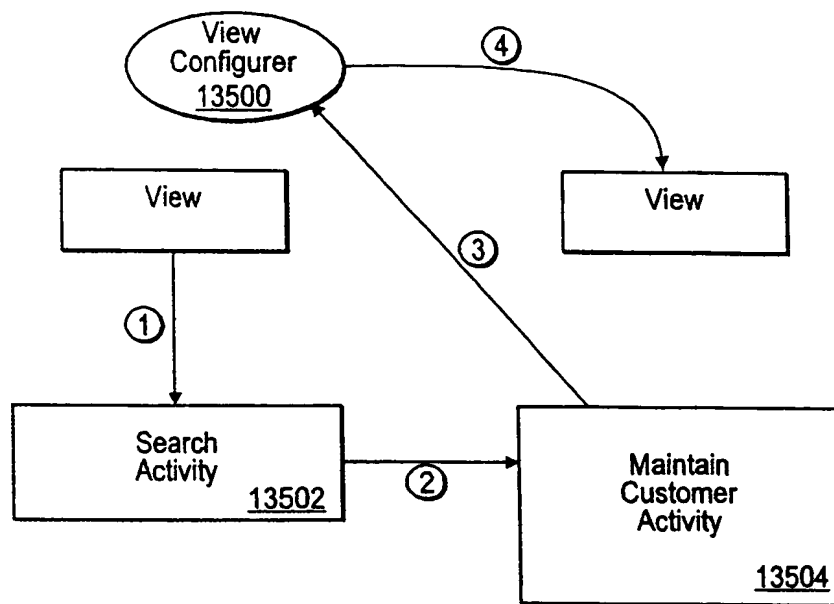


Fig. 135

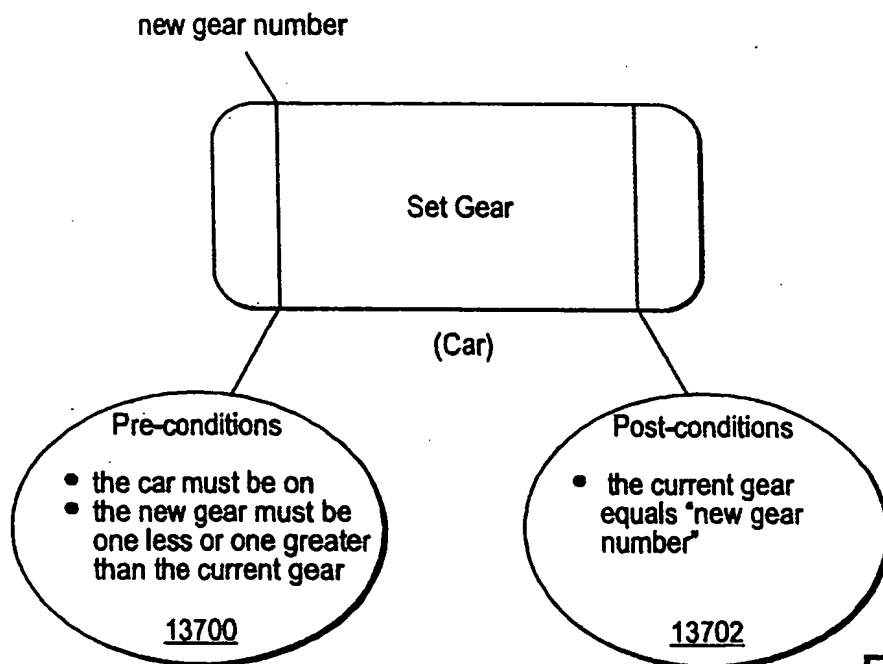


Fig. 137



13600

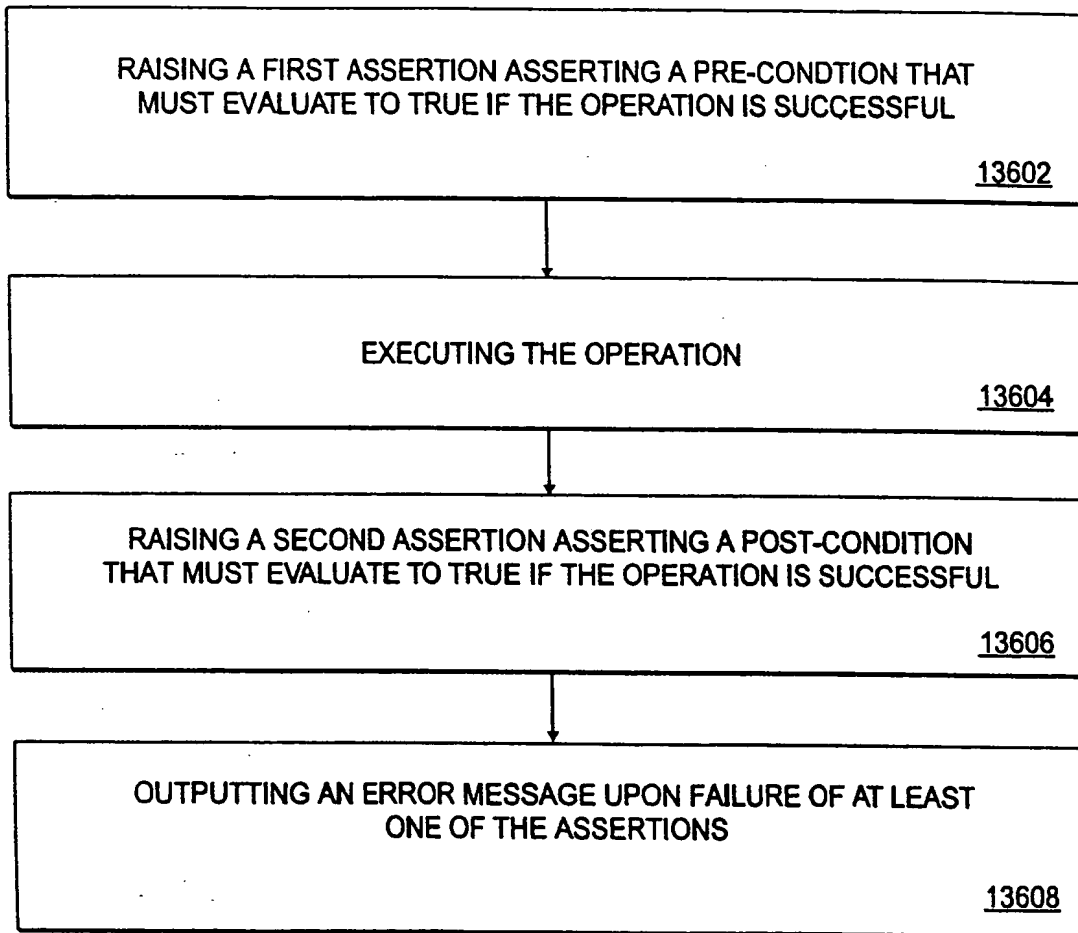


Fig. 136

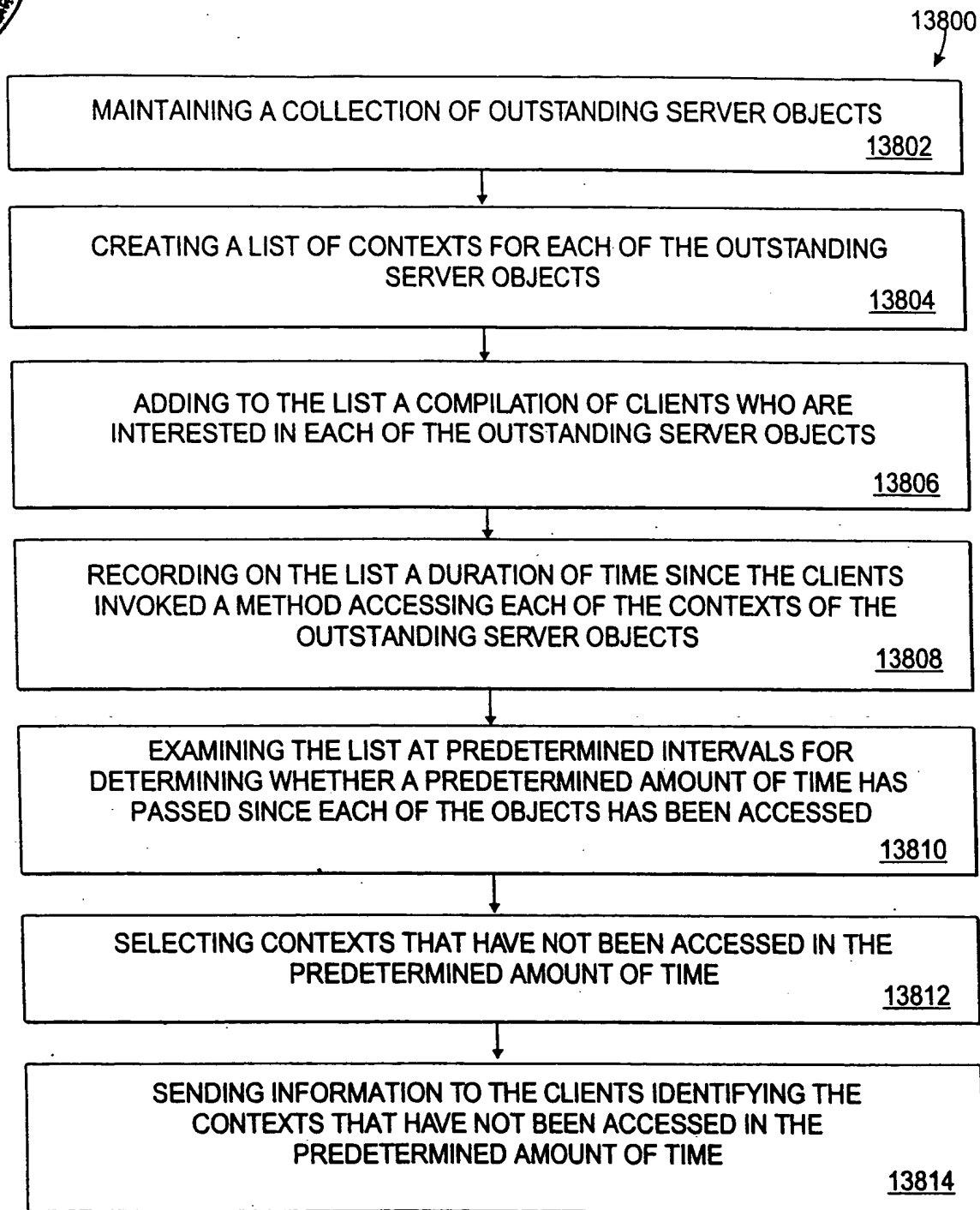
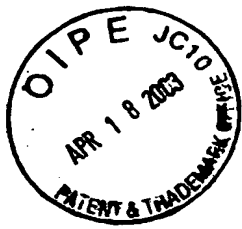


Fig. 138

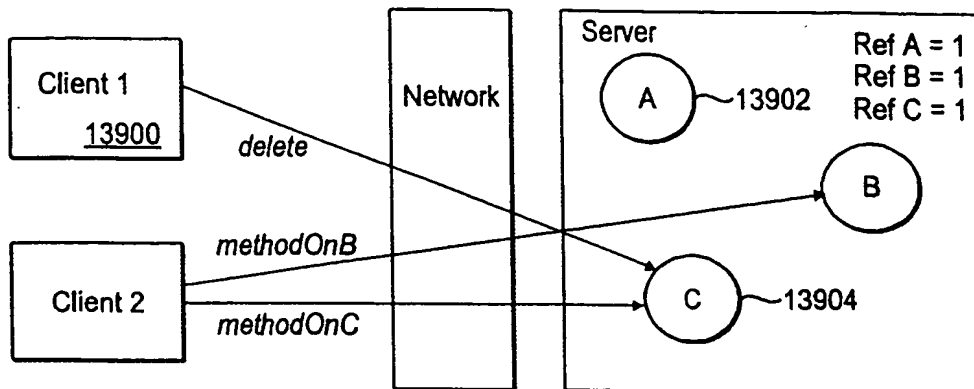


Fig. 139

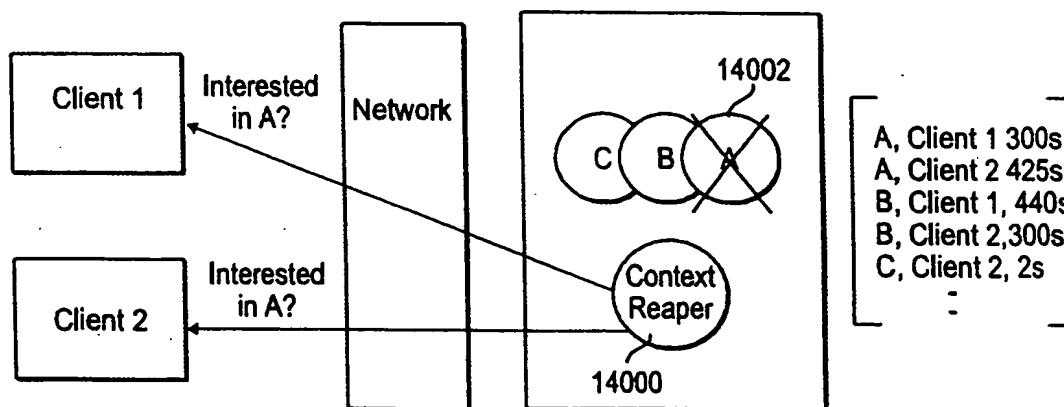


Fig. 140

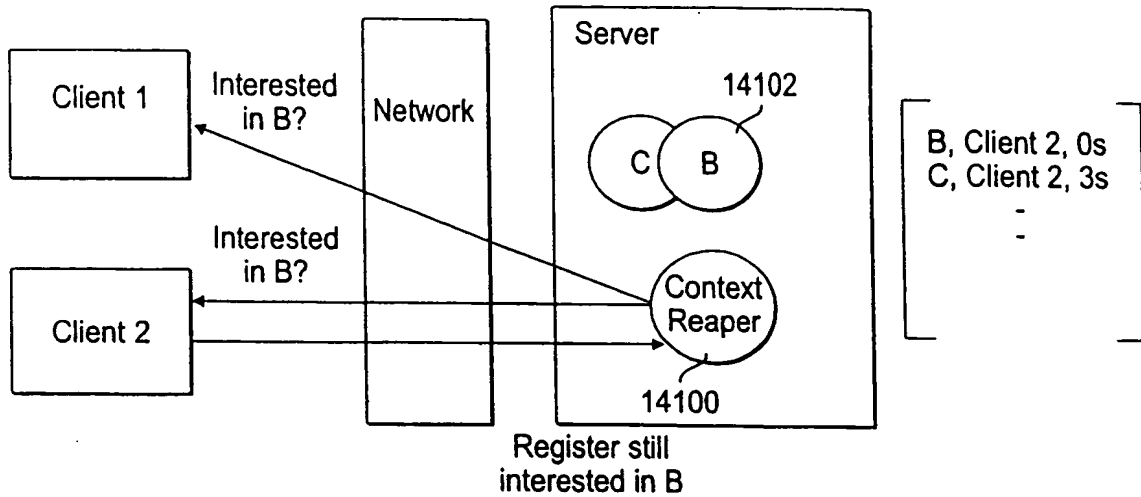


Fig. 141

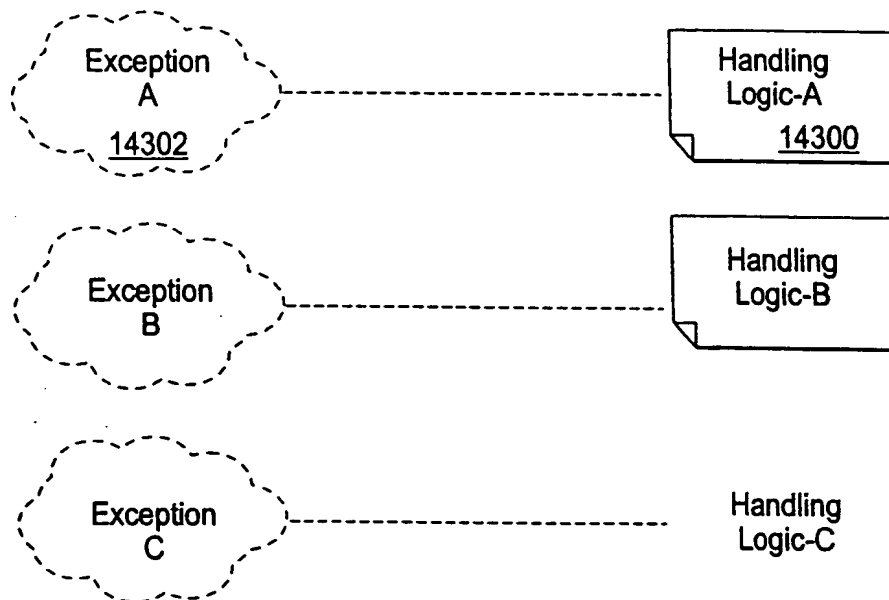


Fig. 143

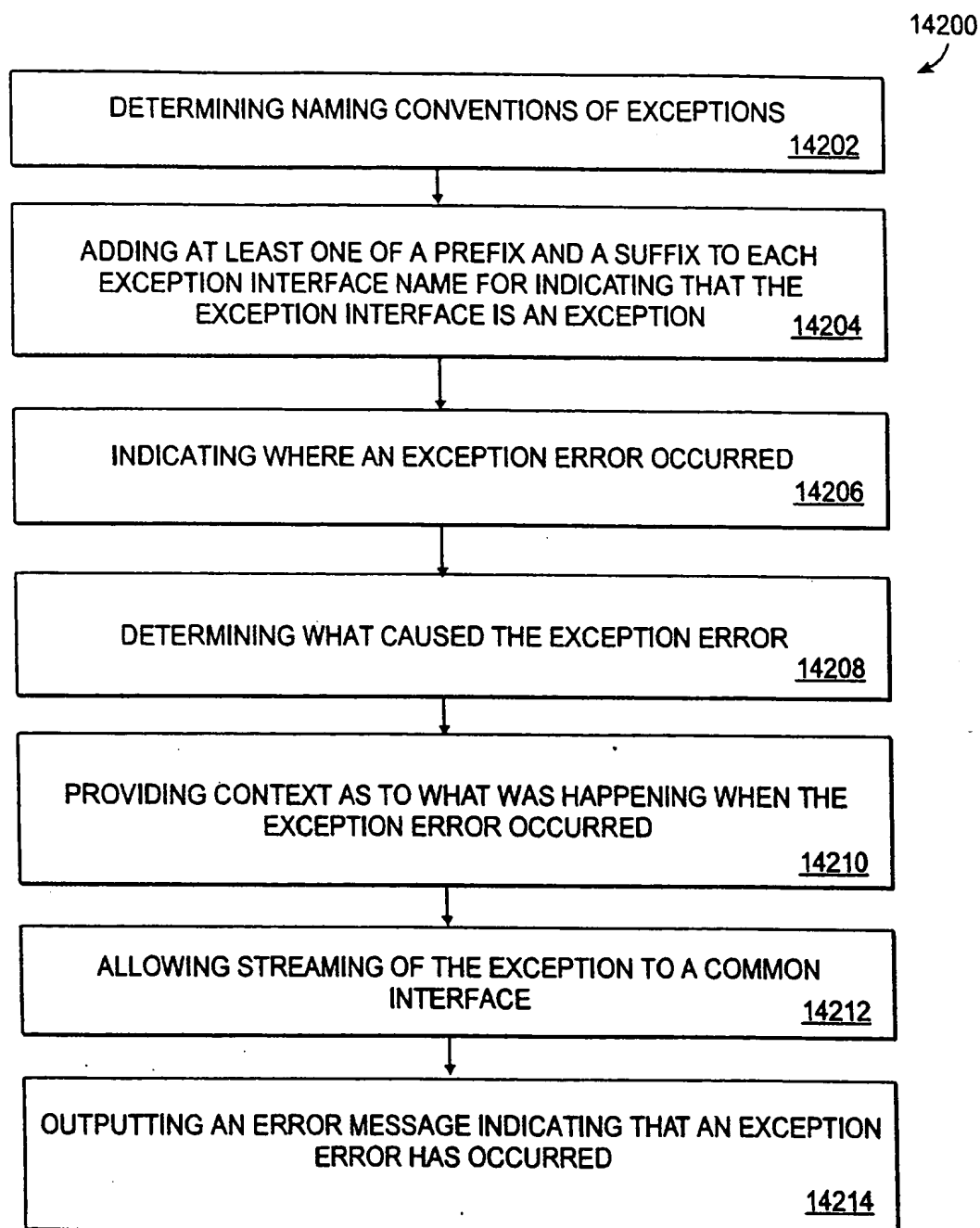
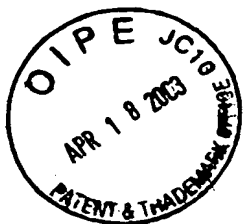


Fig. 142

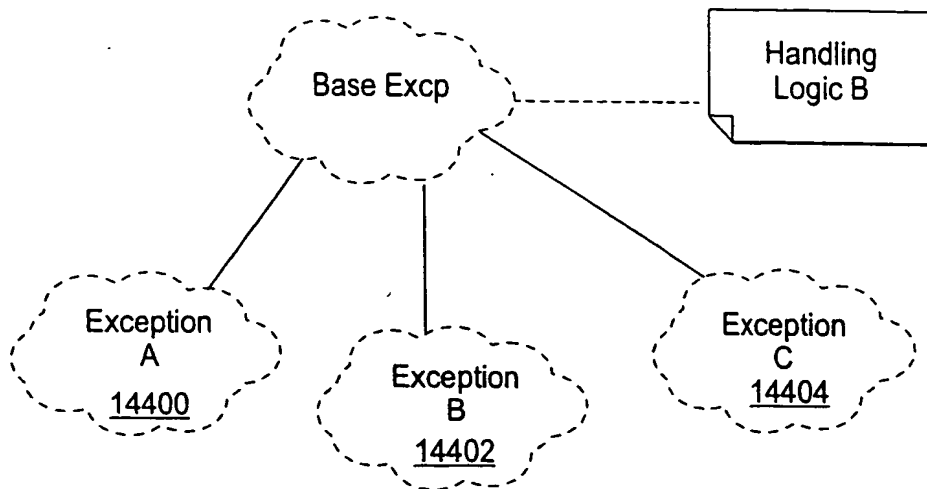


Fig. 144

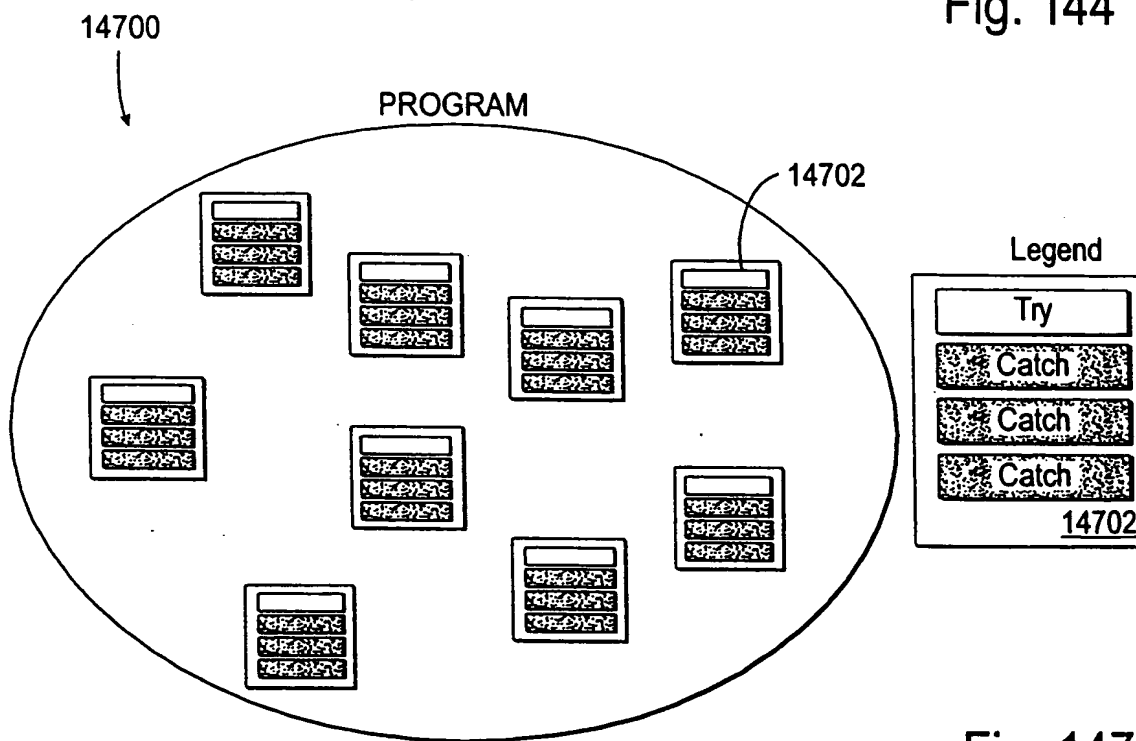


Fig. 147

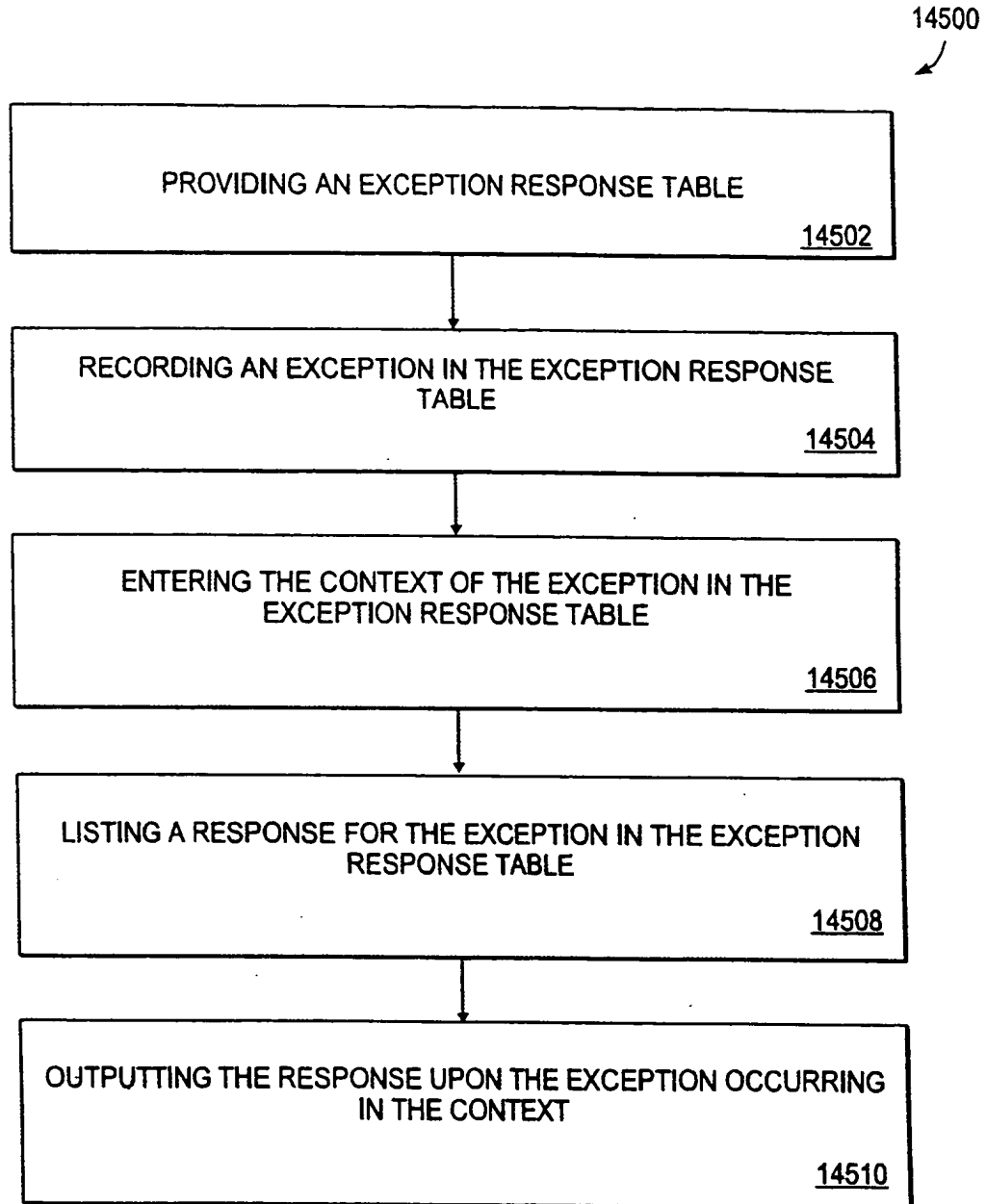


Fig. 145

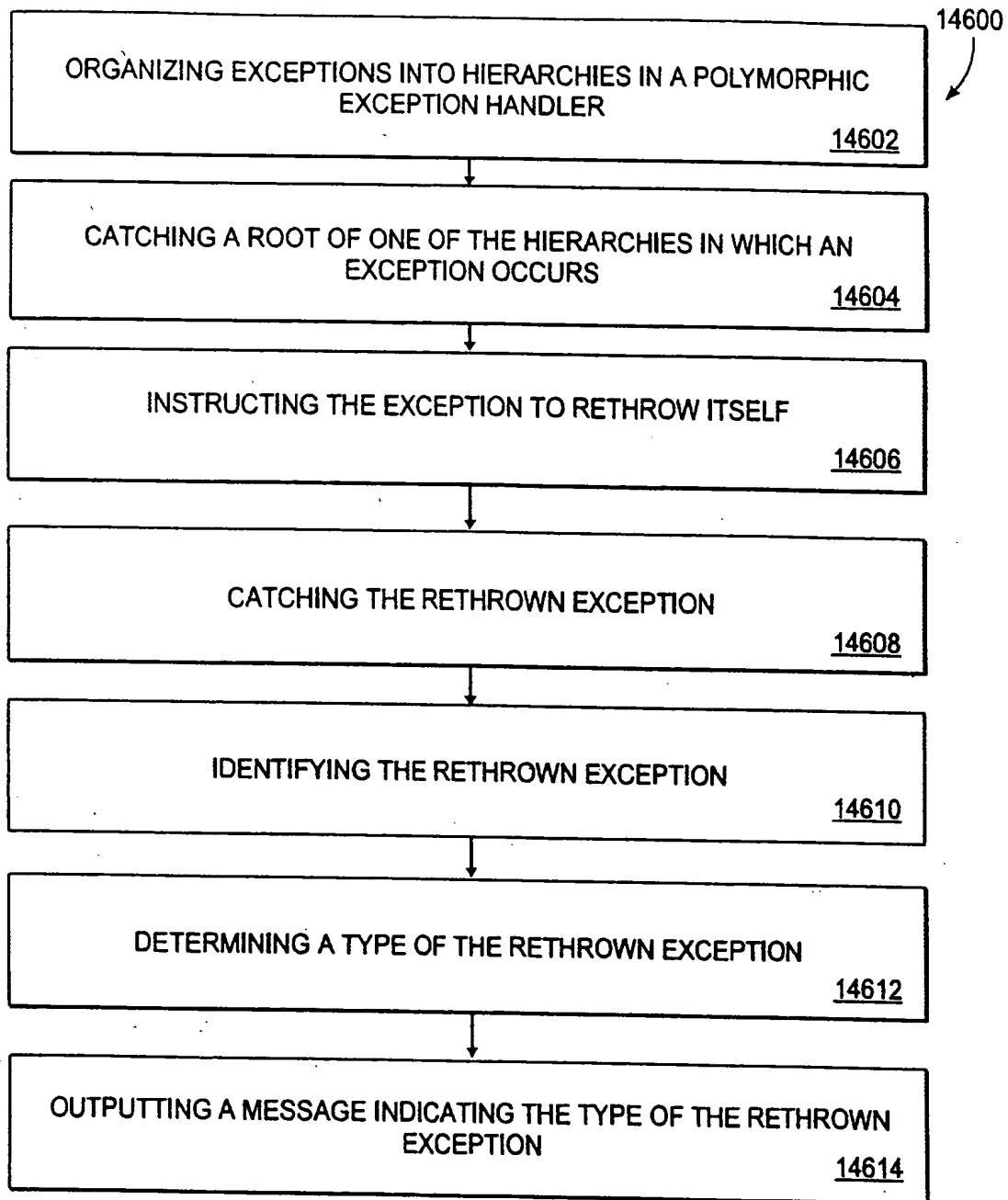


Fig. 146

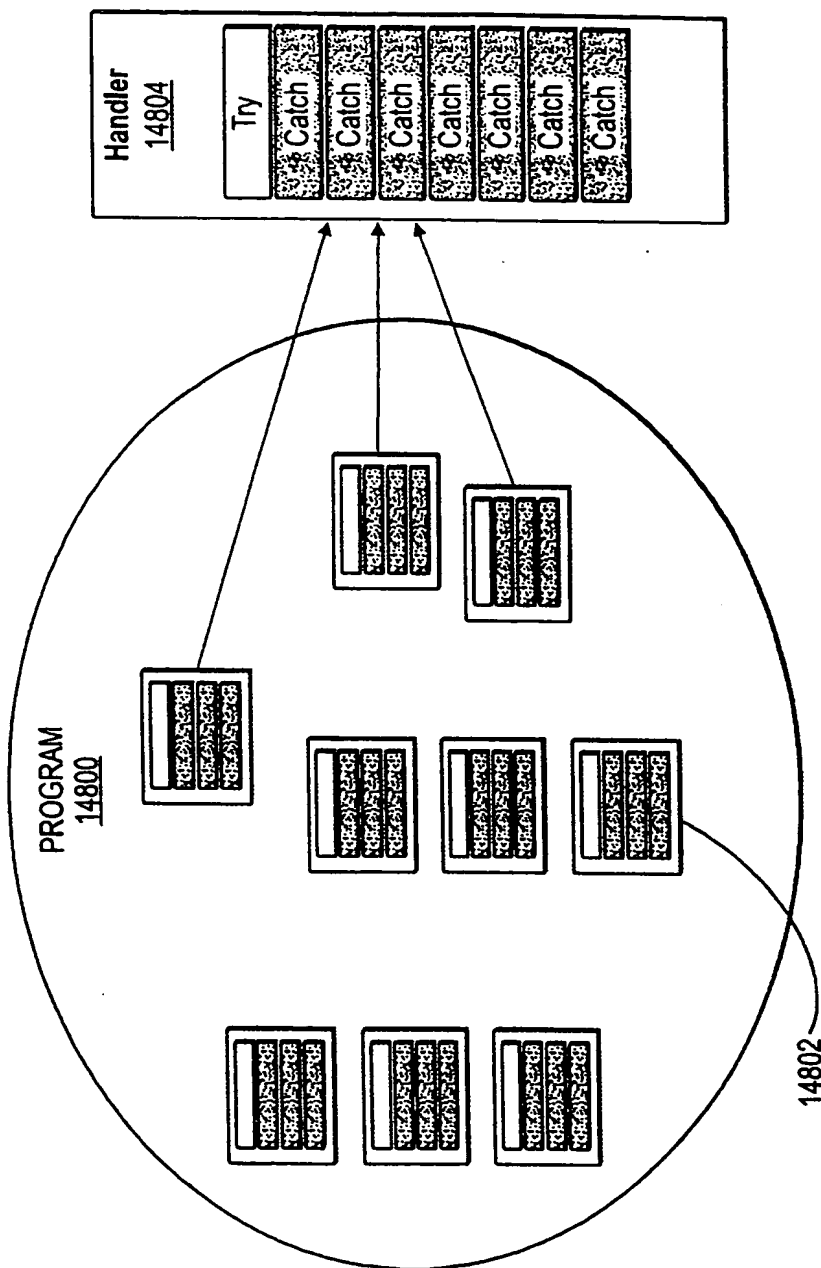


Fig. 148

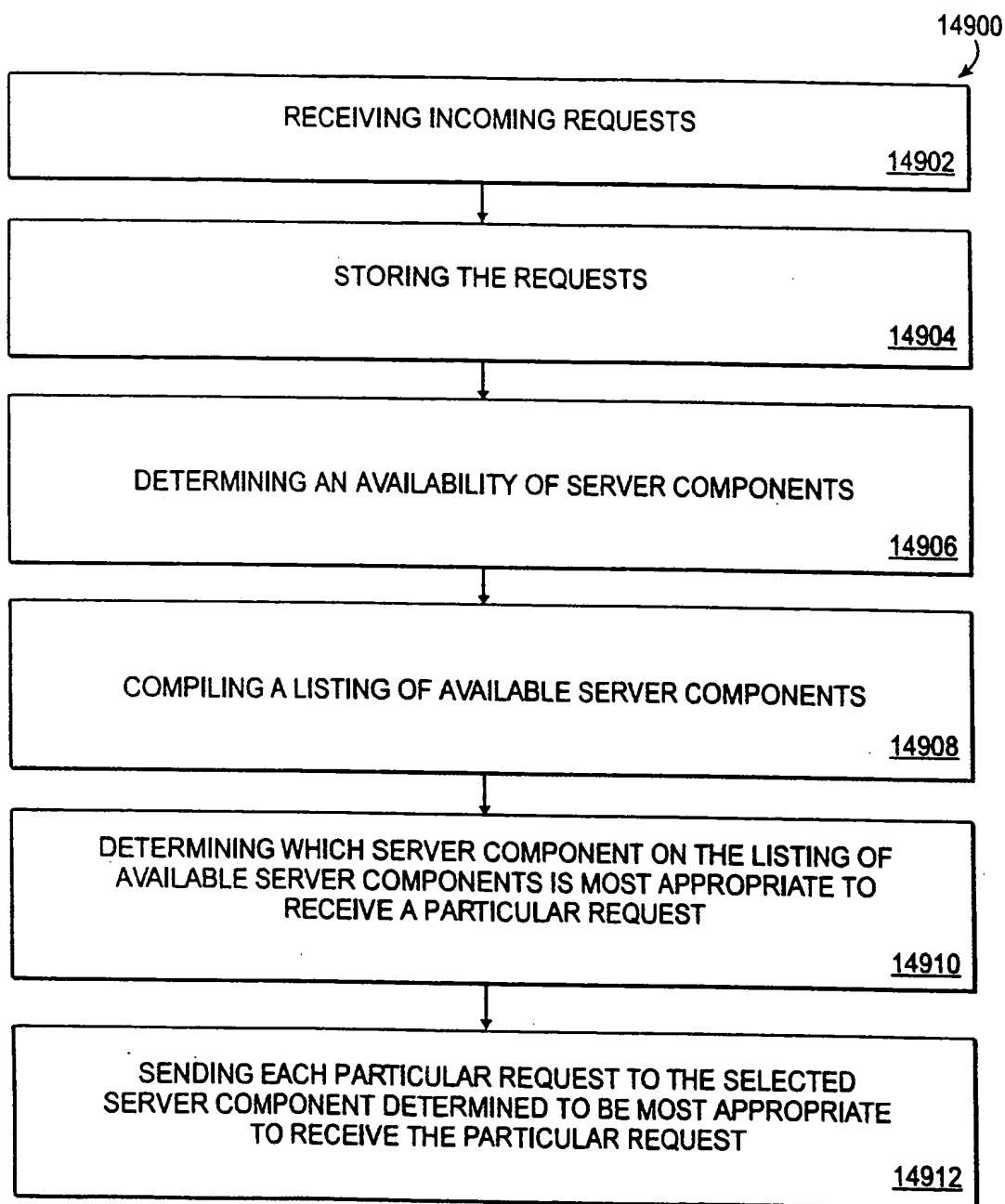


Fig. 149

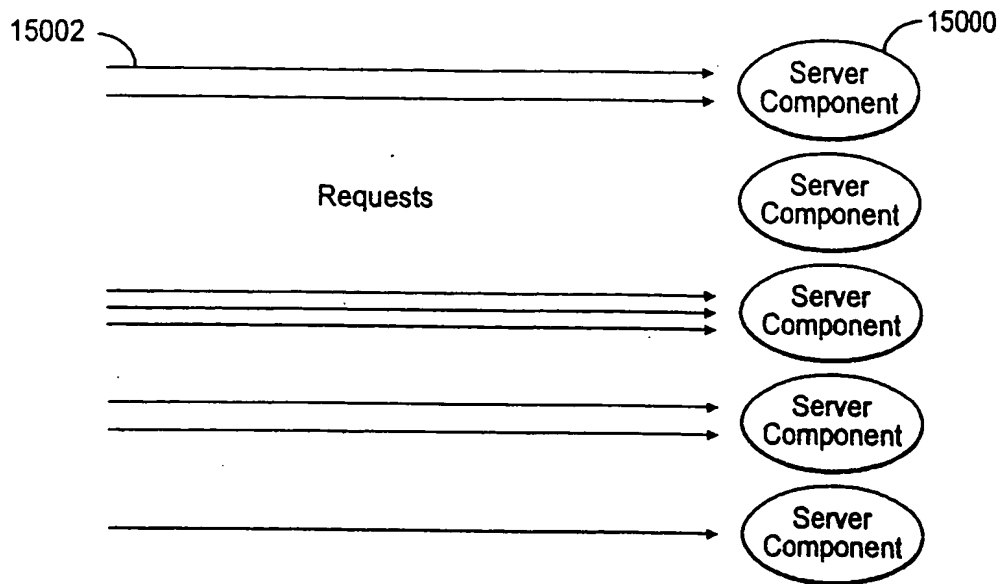


Fig. 150

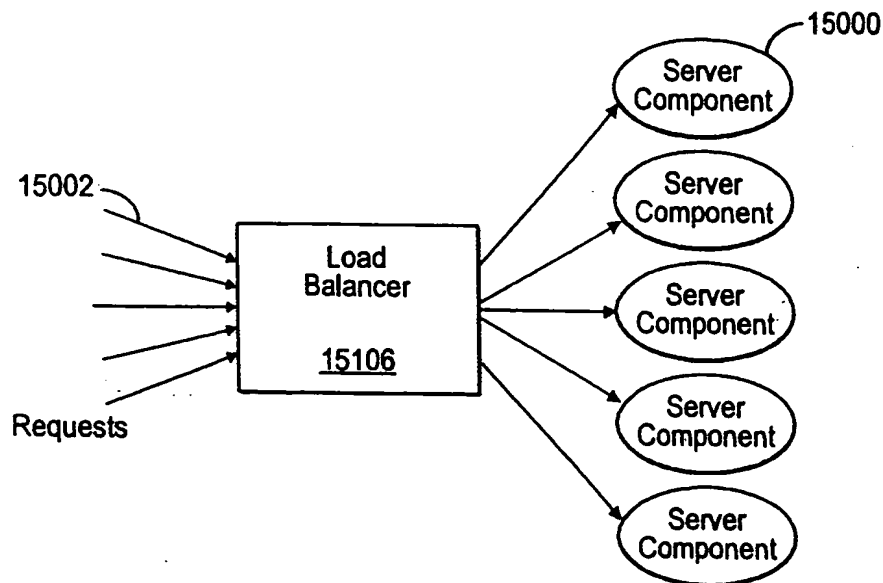


Fig. 151

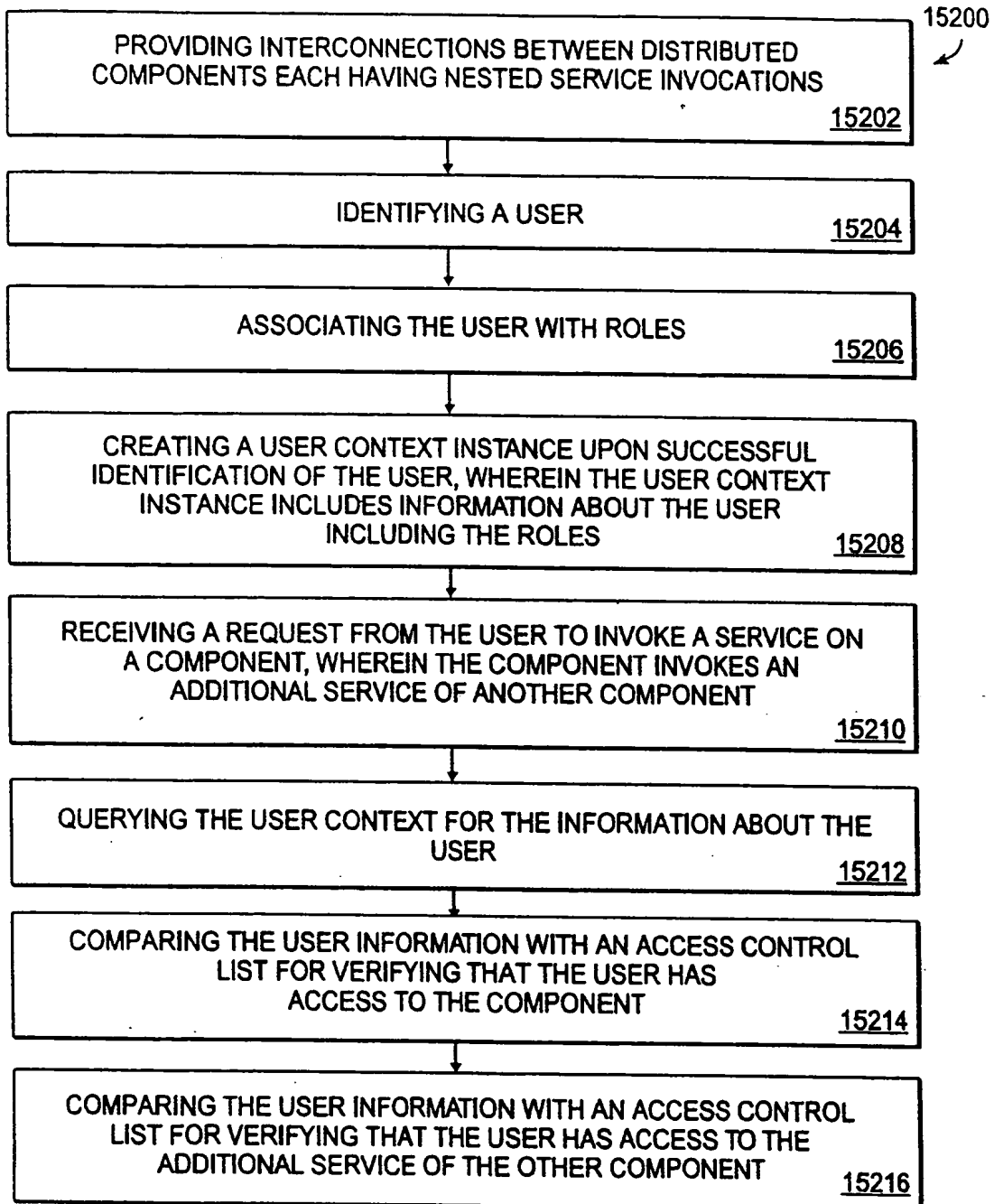


Fig. 152

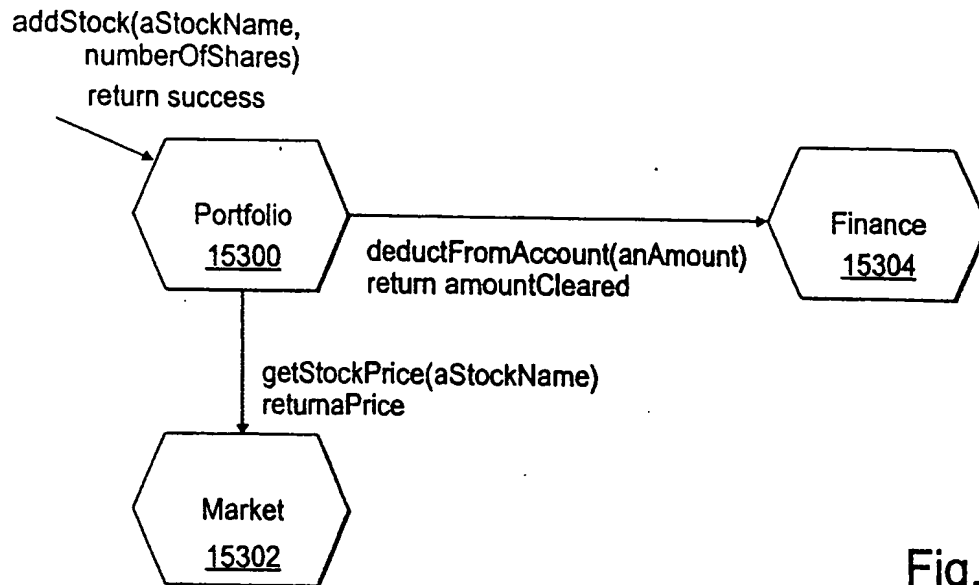
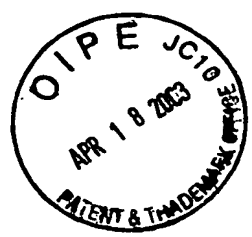


Fig. 153

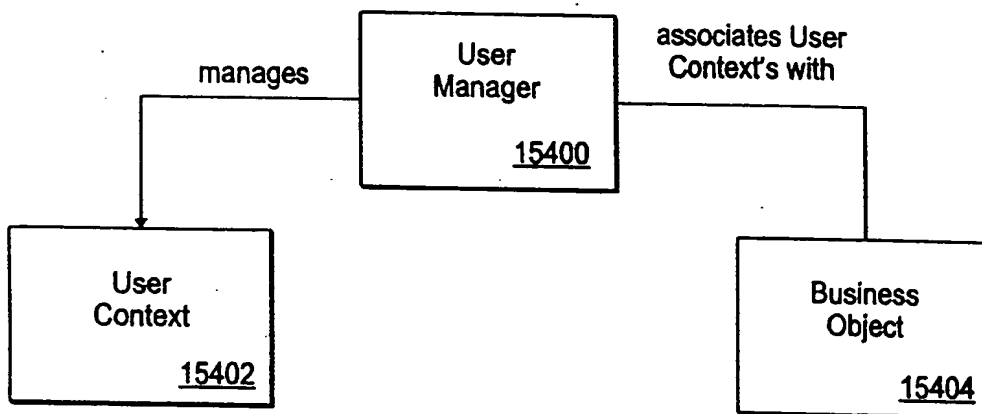


Fig. 154



15500

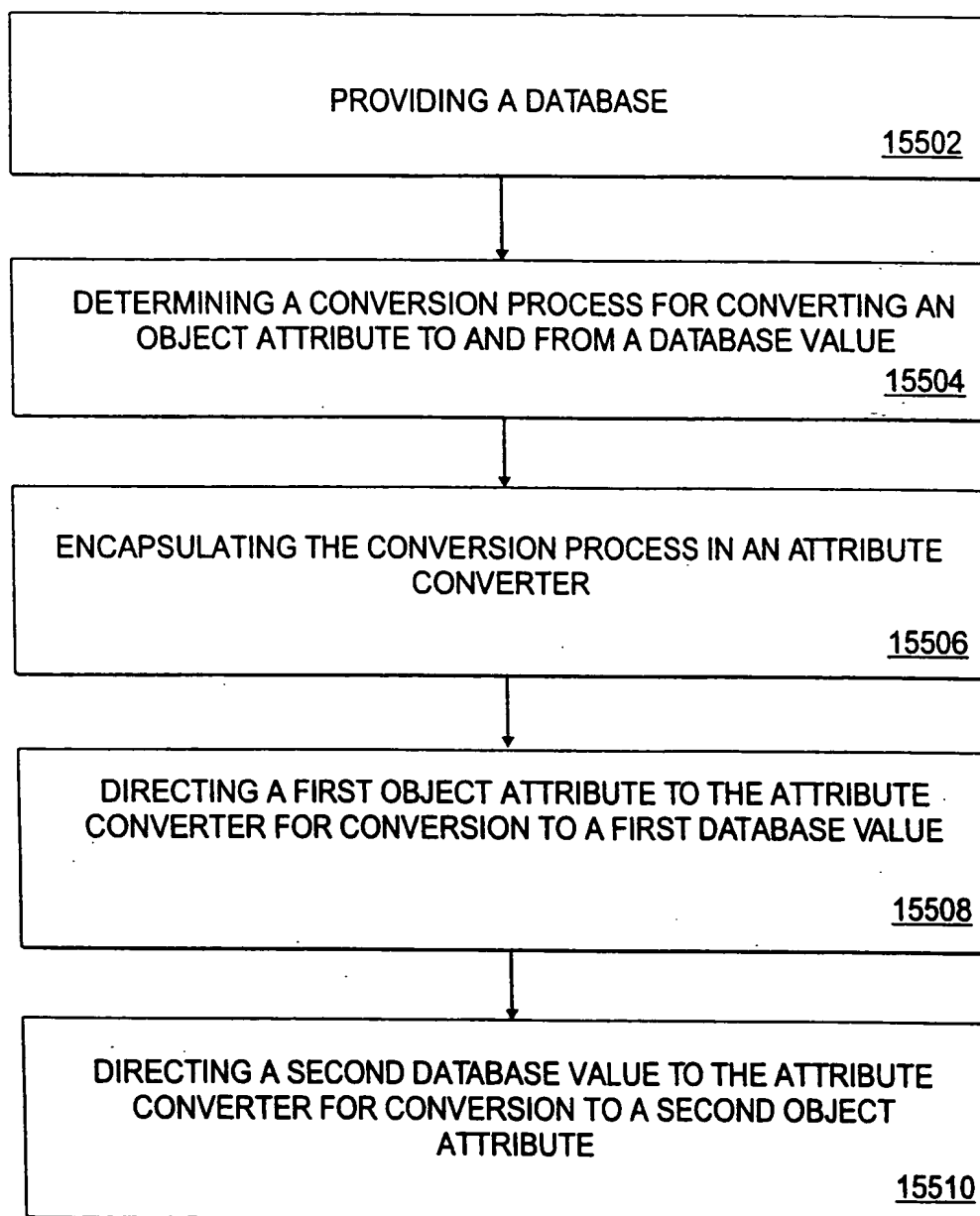


Fig. 155

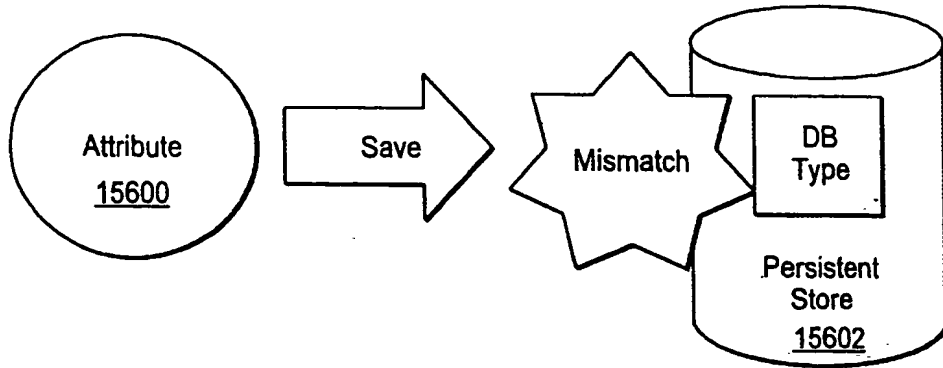


Fig. 156

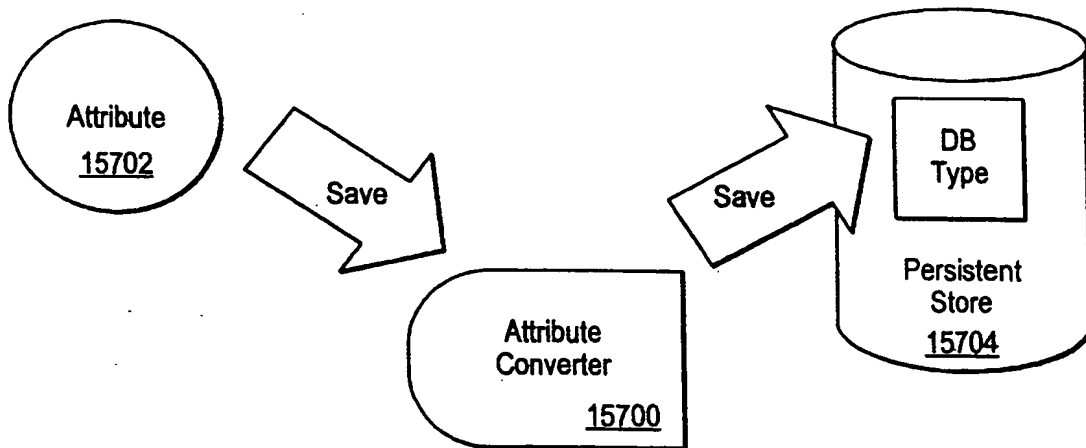


Fig. 157

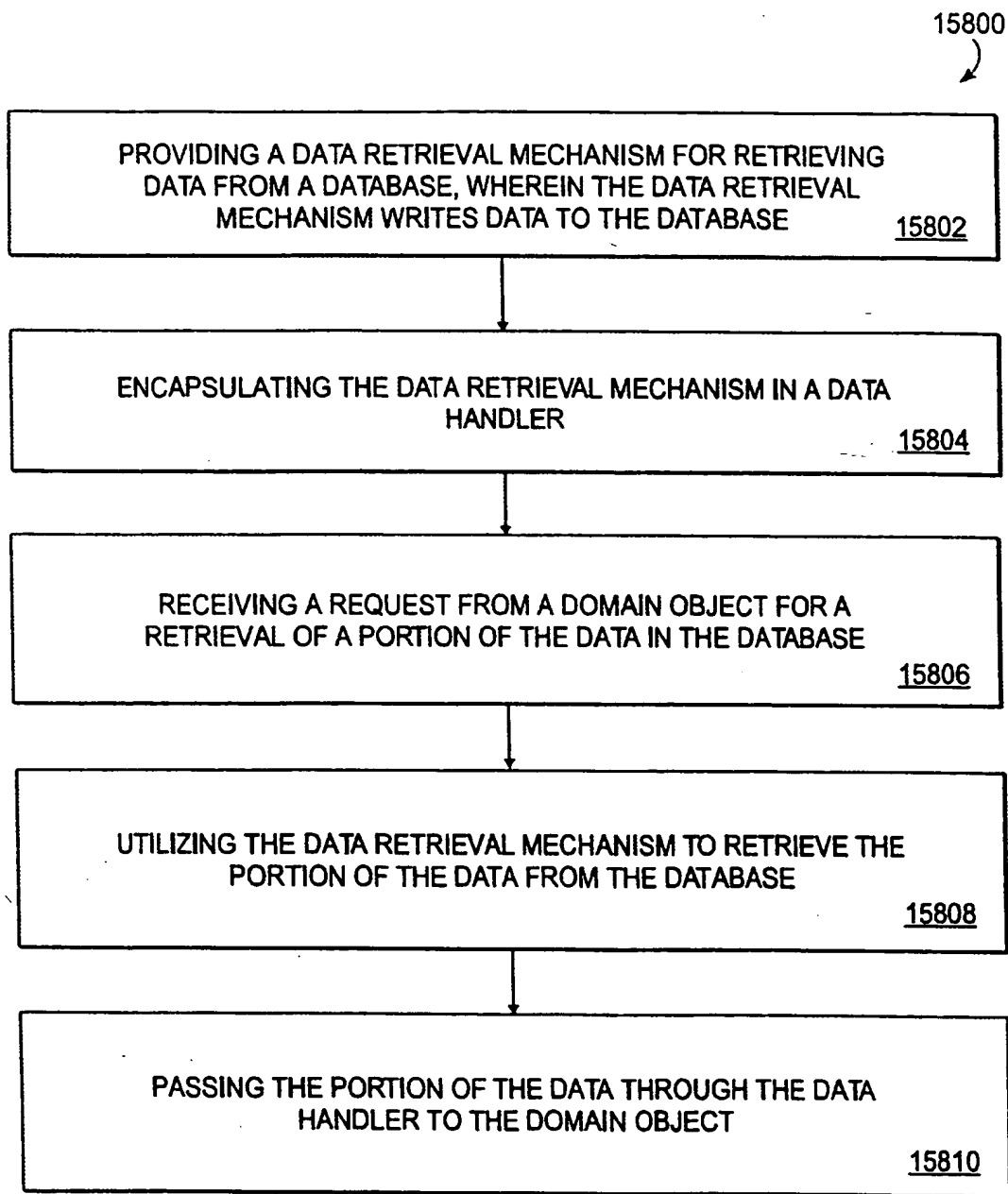
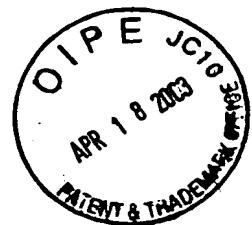


Fig. 158

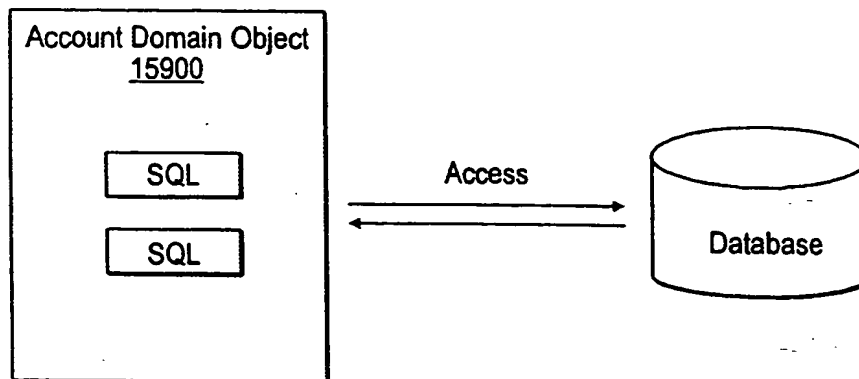
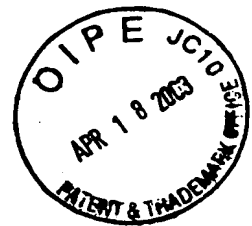


Fig. 159

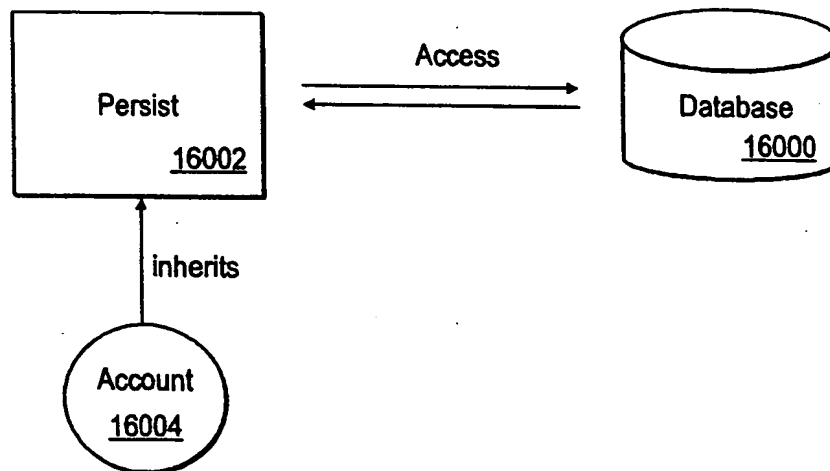


Fig. 160

Fig. 161

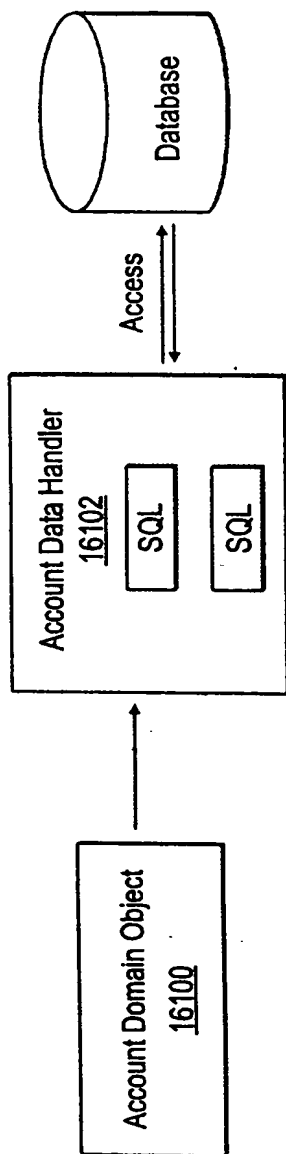
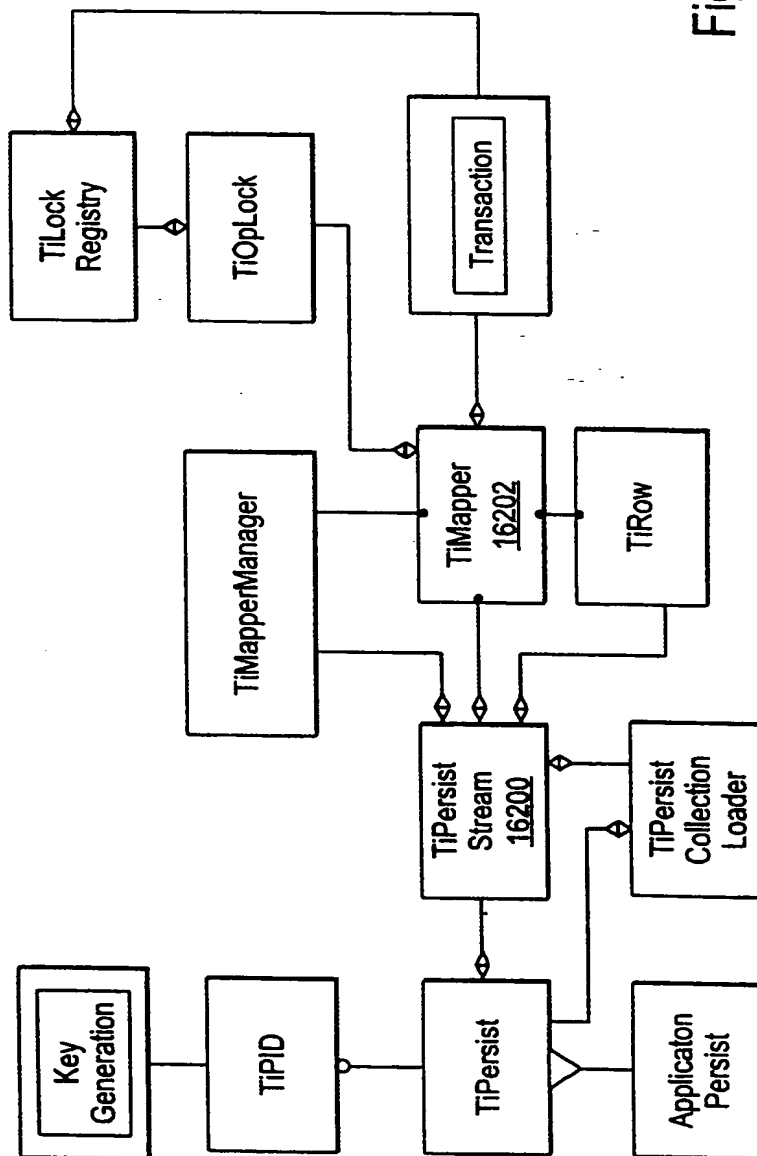
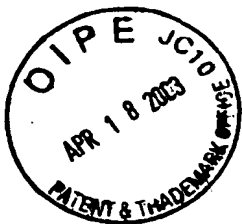


Fig. 162





16300

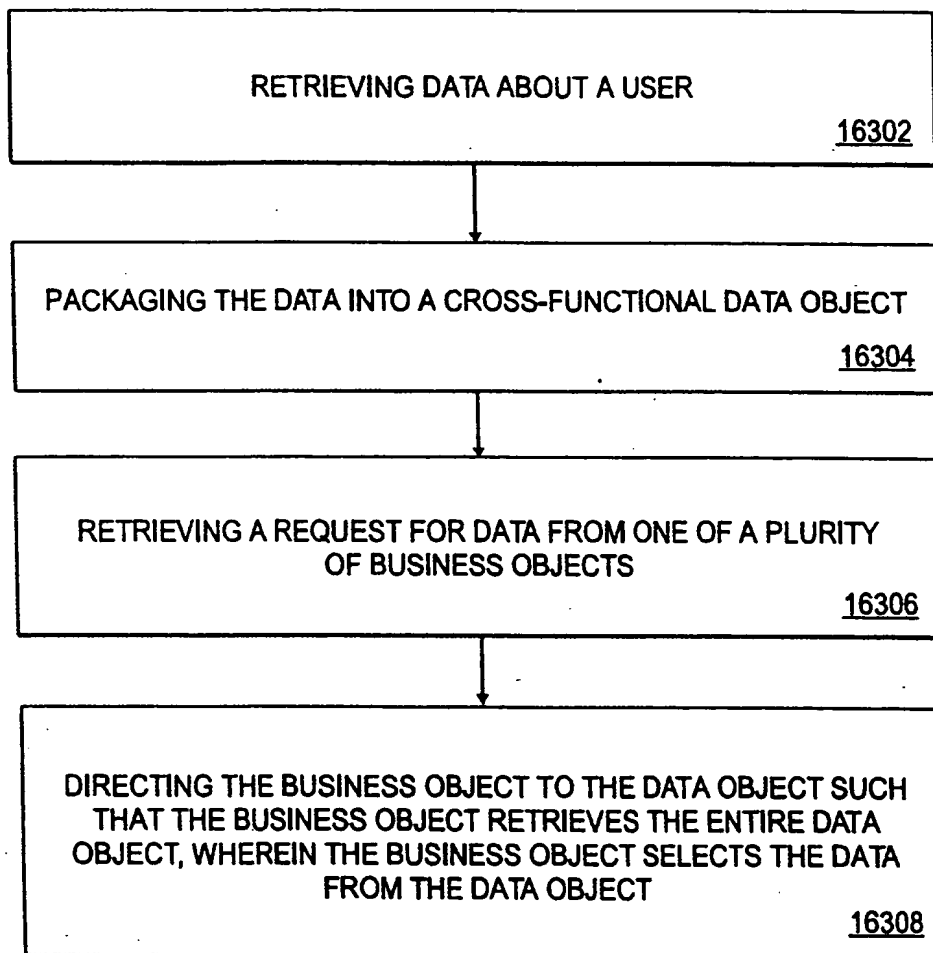
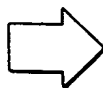


Fig. 163

Account Payment	
Account ID	101
Customer ID	ABCD
<hr/>	
Service charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<hr/>	
<input type="radio"/> Credit Card #	3892
<input type="radio"/> Check#	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	



```
struct AccountPaymentData
{
    char    accountID[24]
           customerID[24]
    Money   serviceCharges,
           balanceDue,
           amountPaid;
    Date    paymentdate
    int     creditCardNum,
           checkNum;
};
```

Fig. 164

Account Payment	
Account ID	101
Customer ID	ABCD
<hr/>	
Service charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<hr/>	
<input type="radio"/> Credit Card #	3892
<input type="radio"/> Check#	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

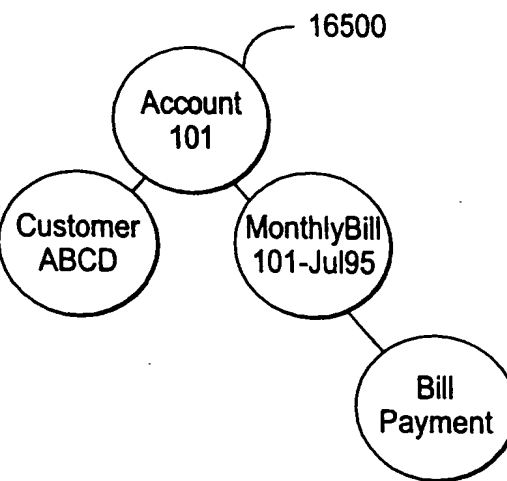
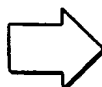


Fig. 165



16600

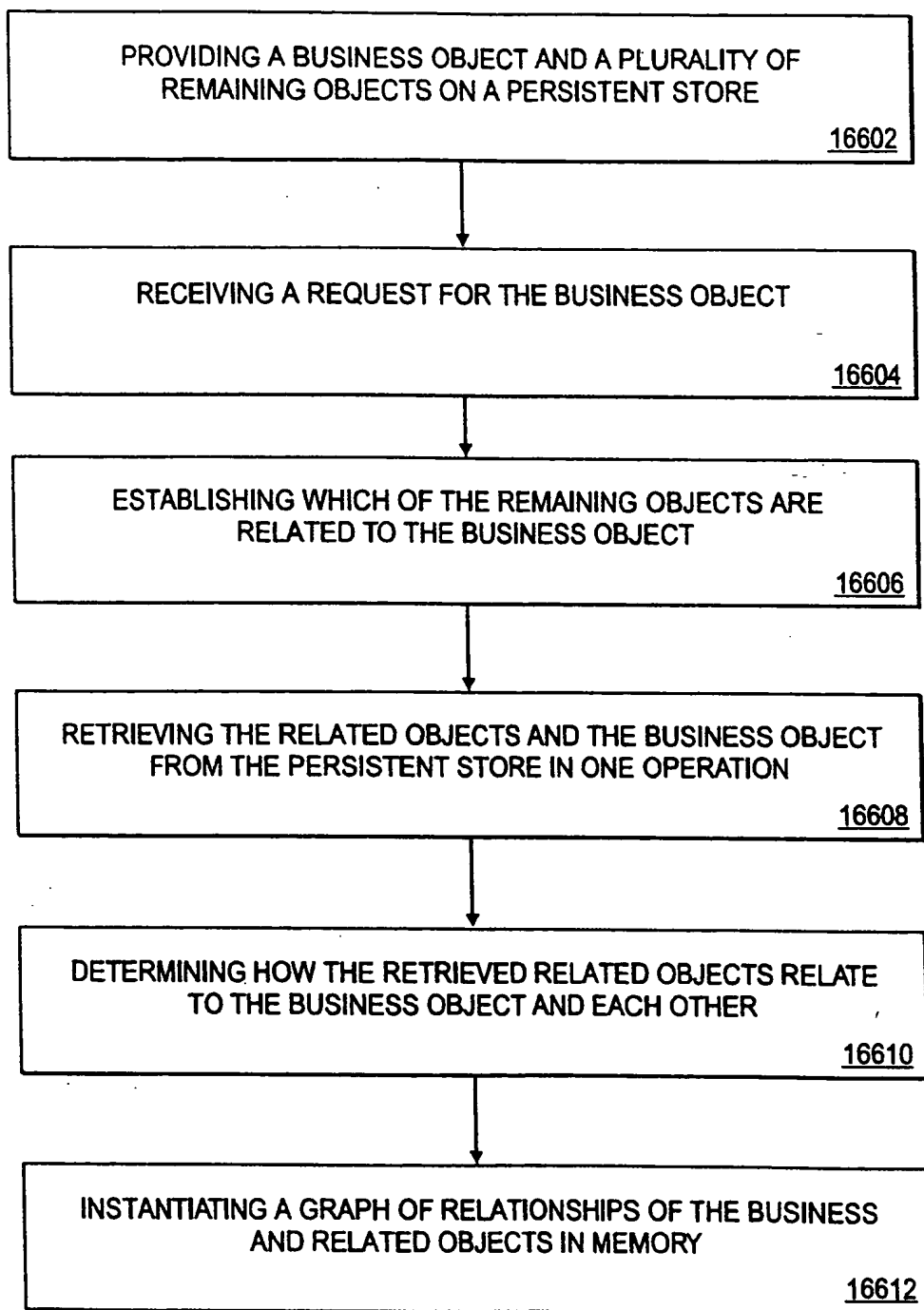


Fig. 166

16700

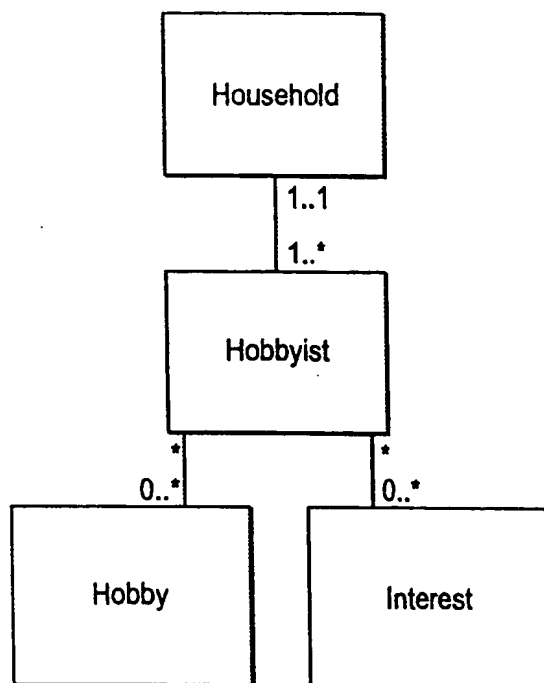


Fig. 167

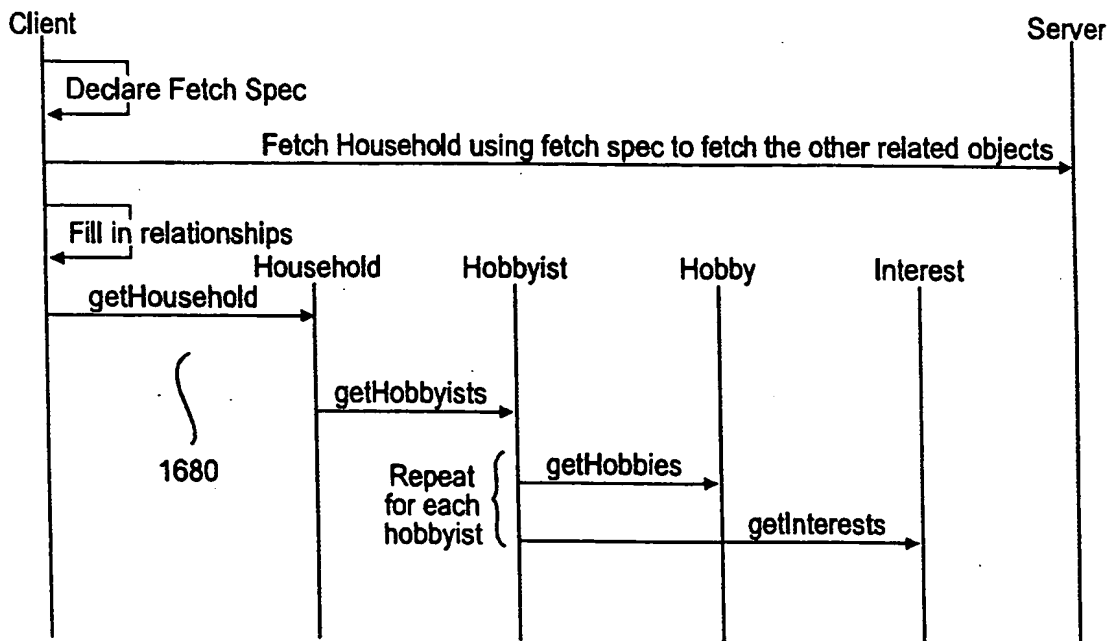


Fig. 168

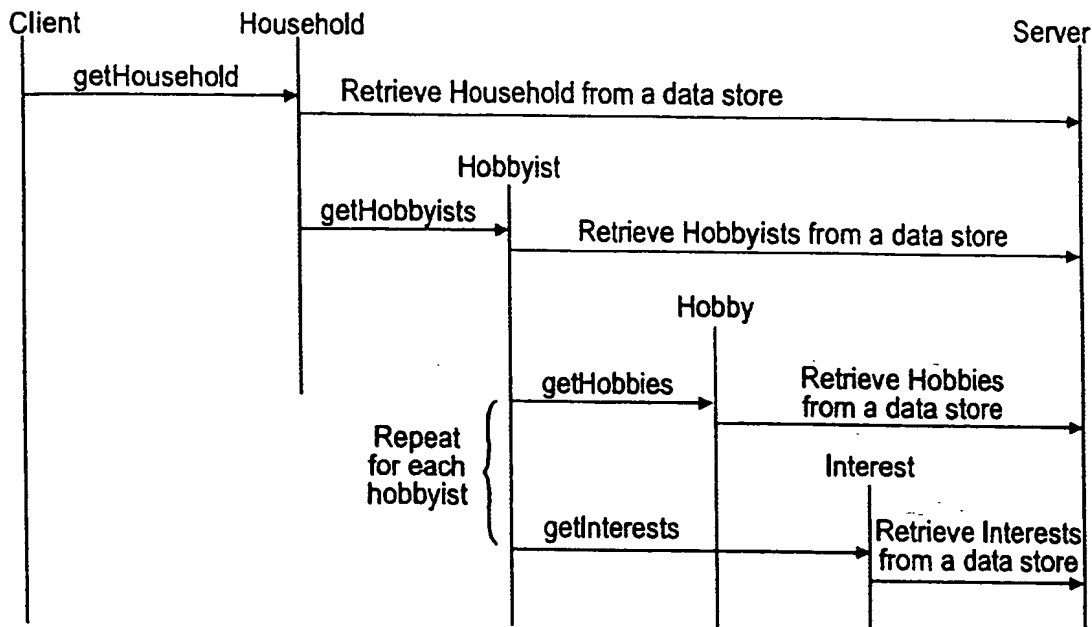
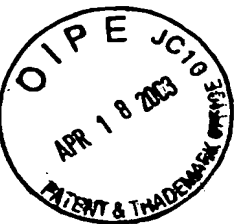


Fig. 169

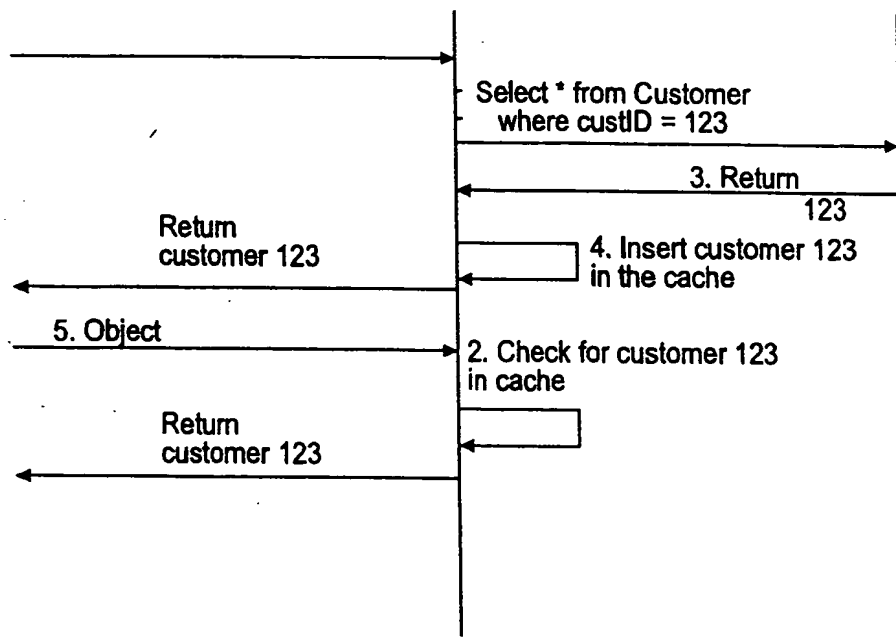
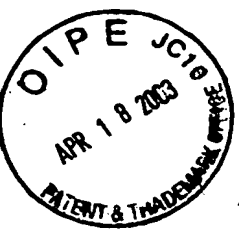


Fig. 172



17000

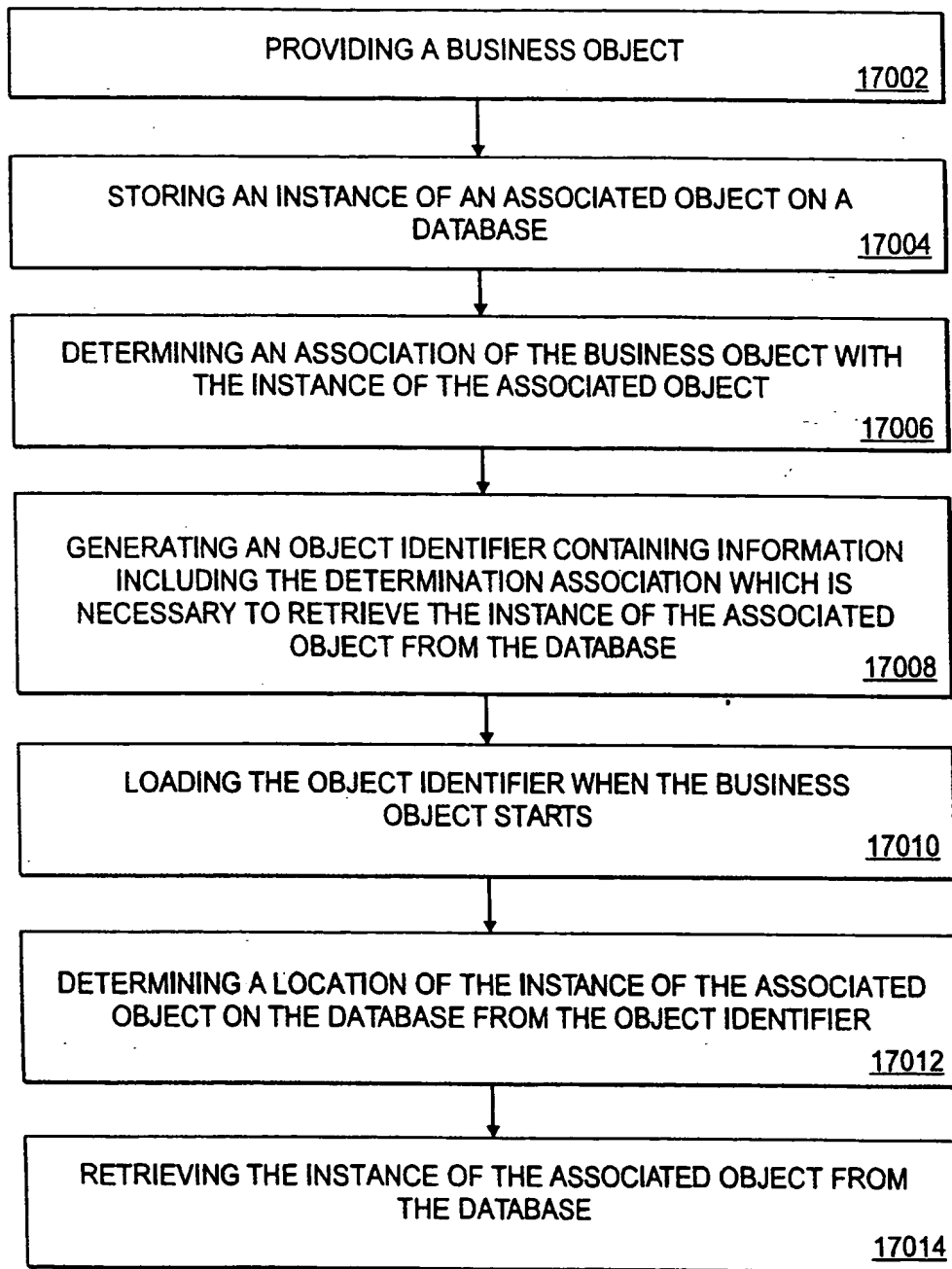
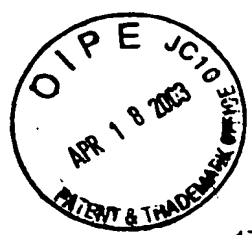


Fig. 170



17100

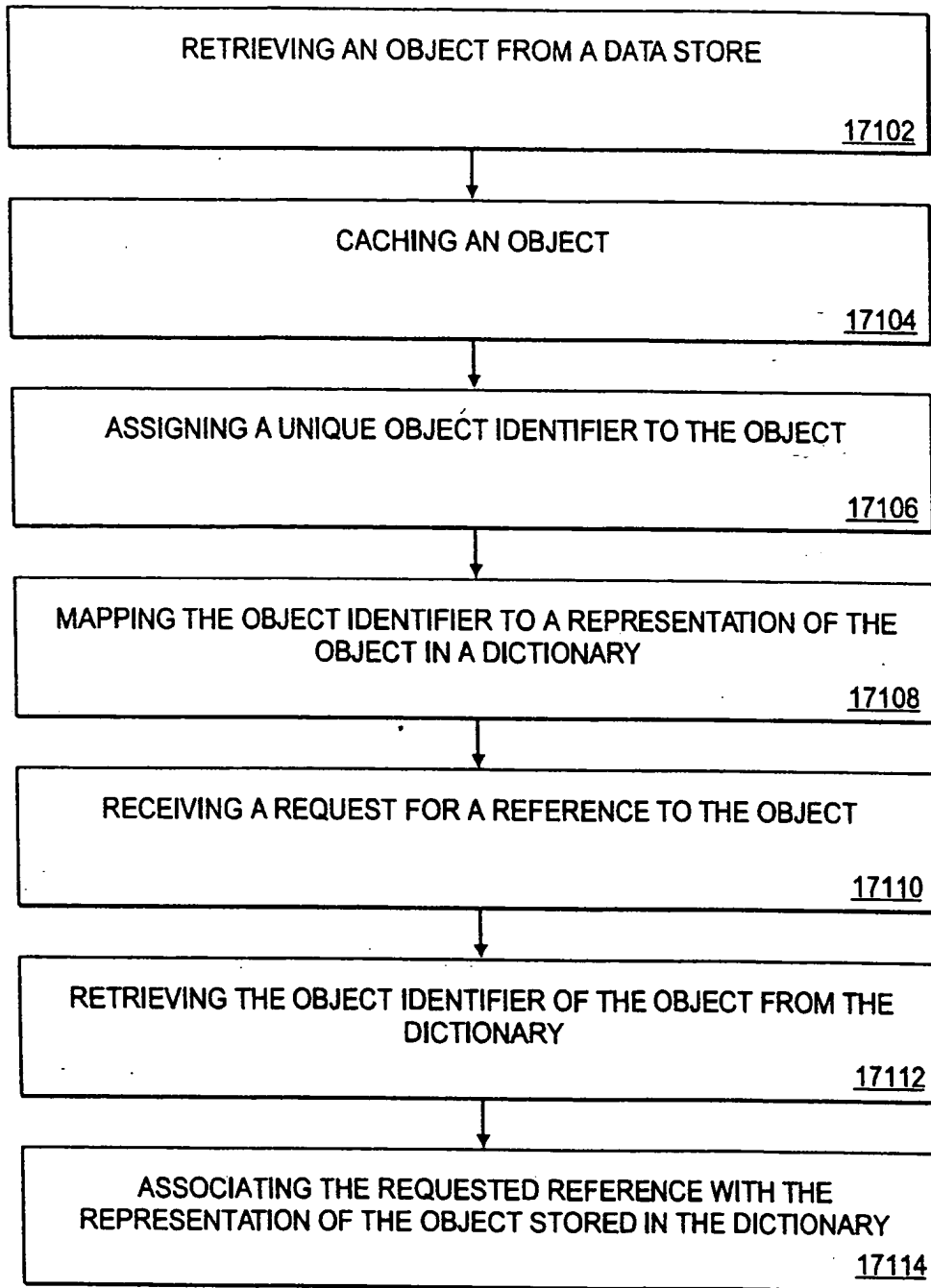


Fig. 171



17300

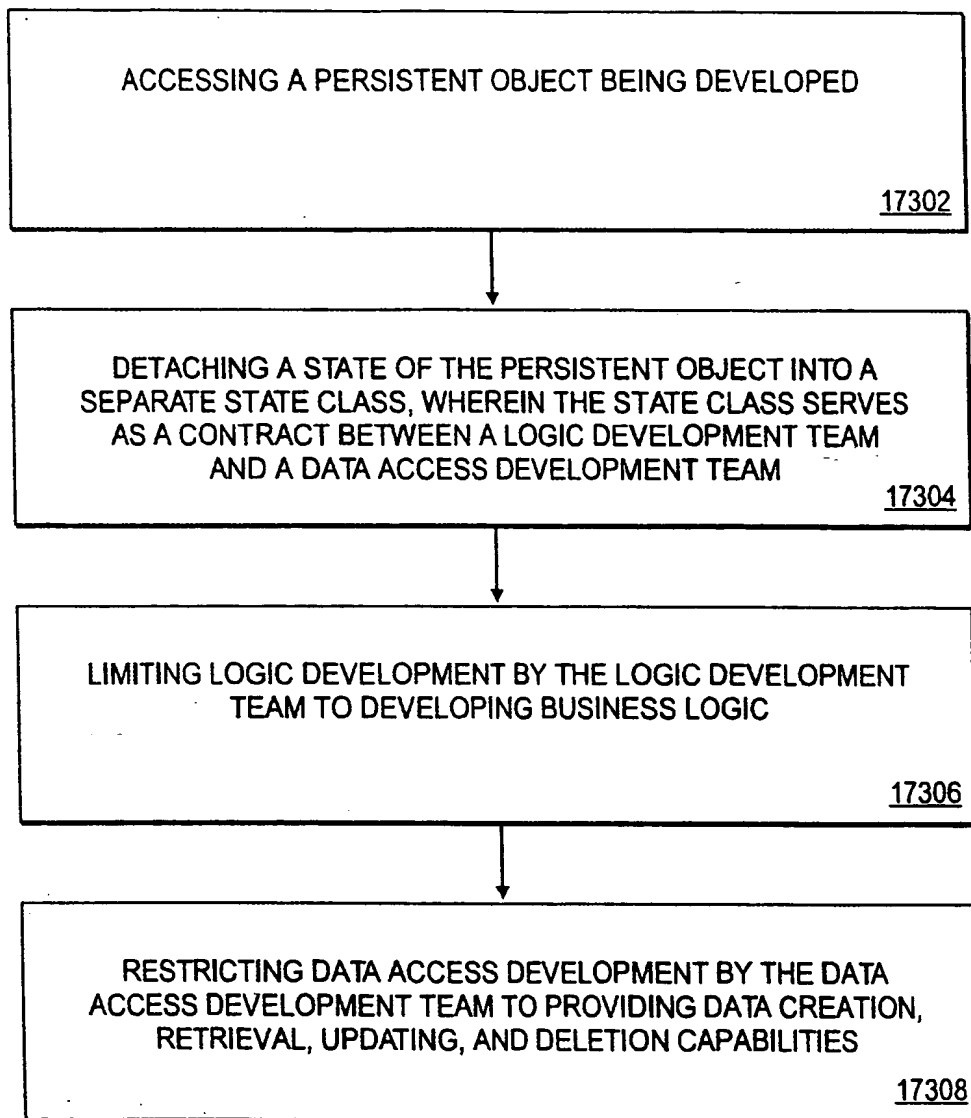


Fig. 173



17400

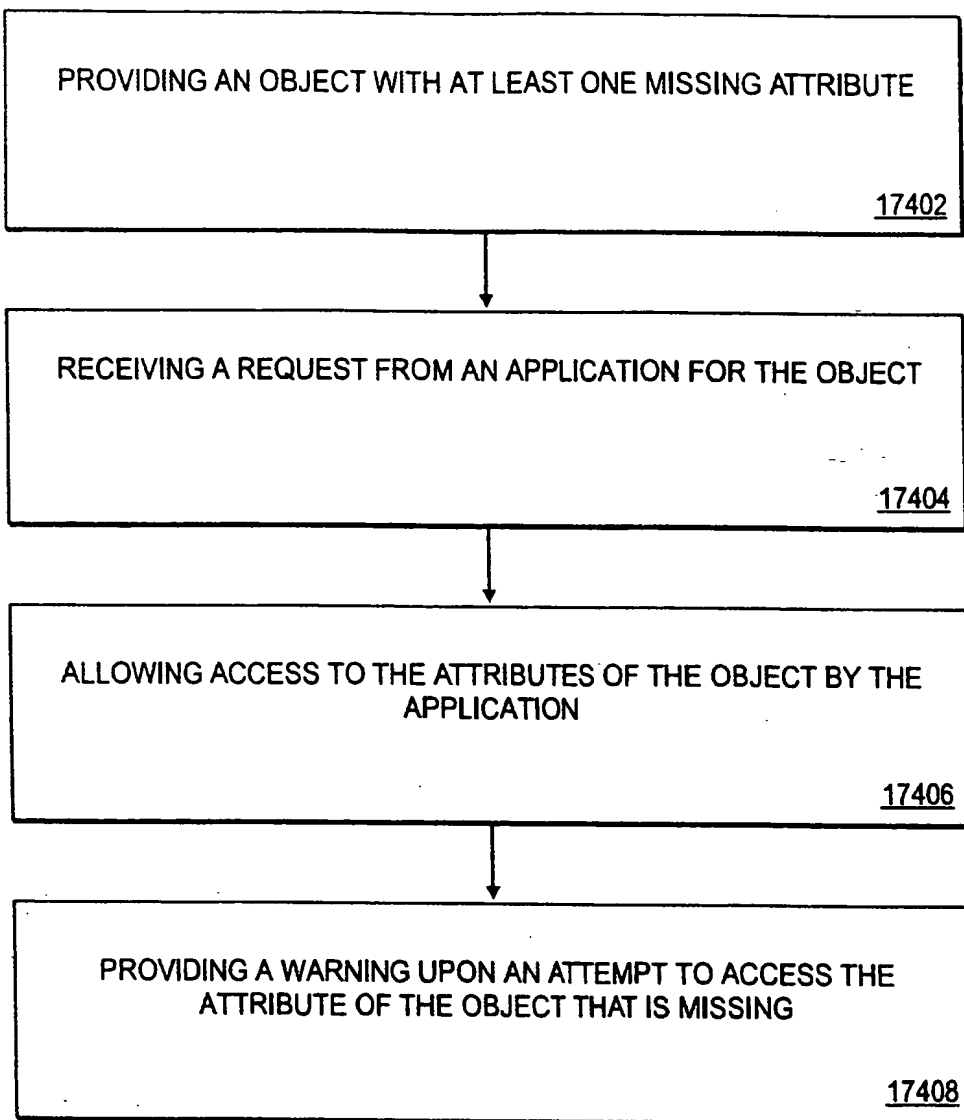


Fig. 174

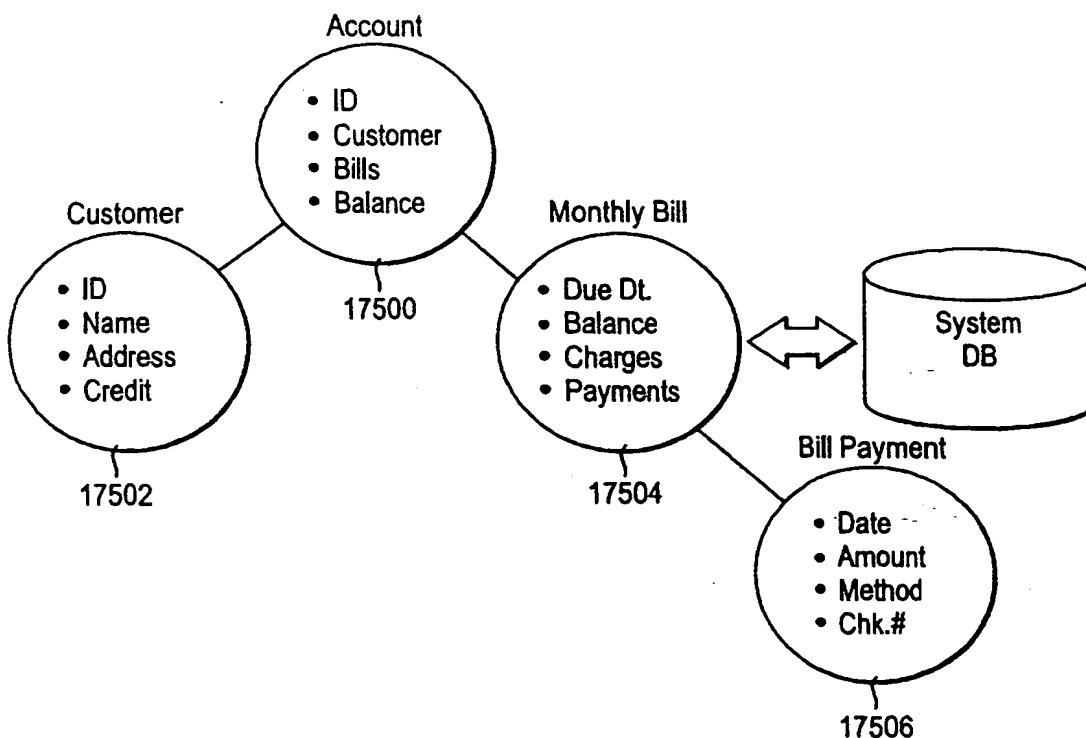


Fig. 175

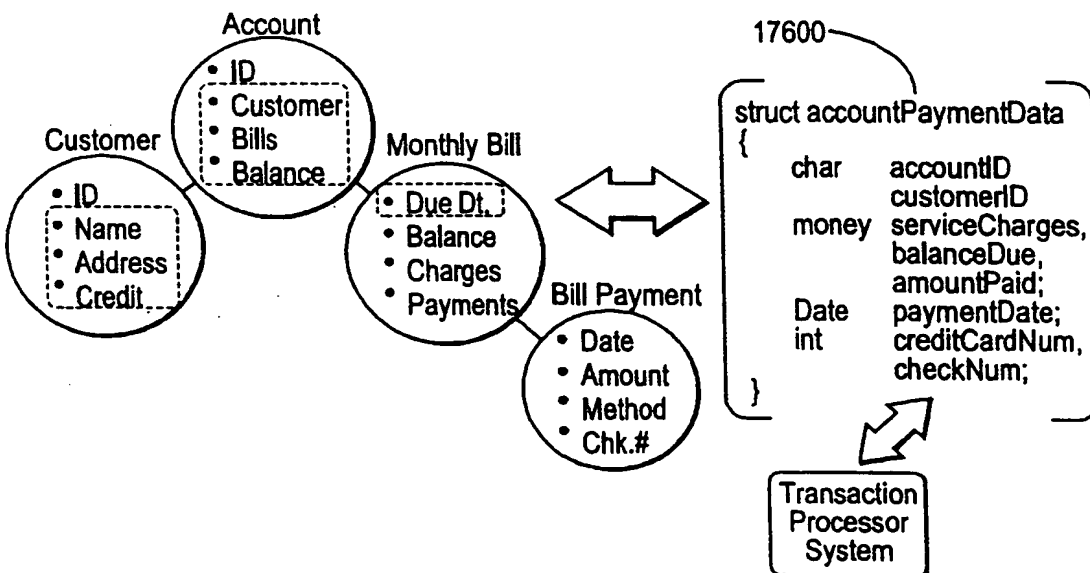


Fig. 176

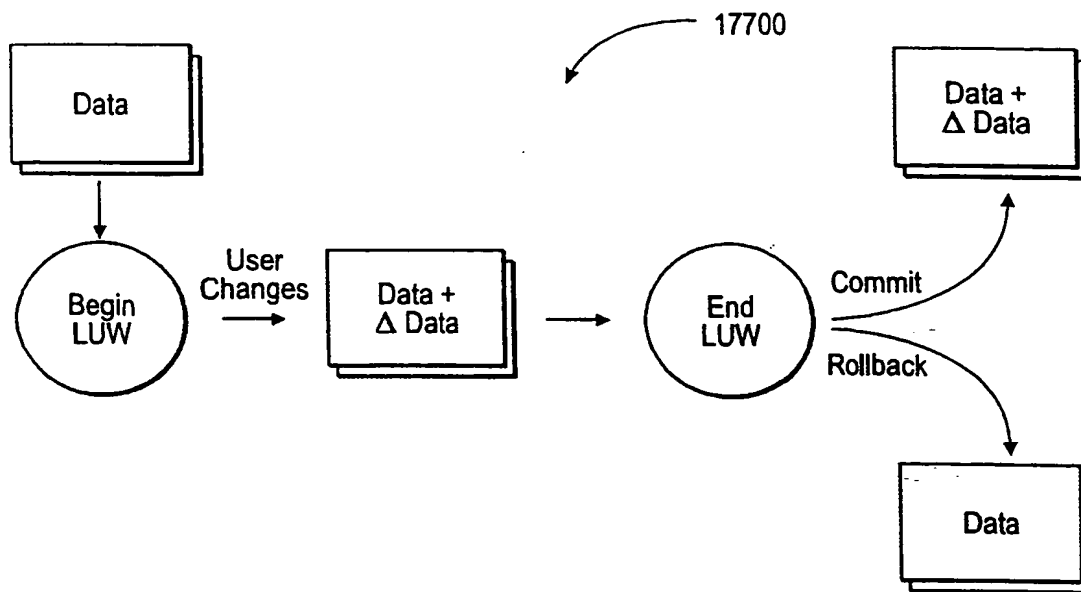


Fig. 177

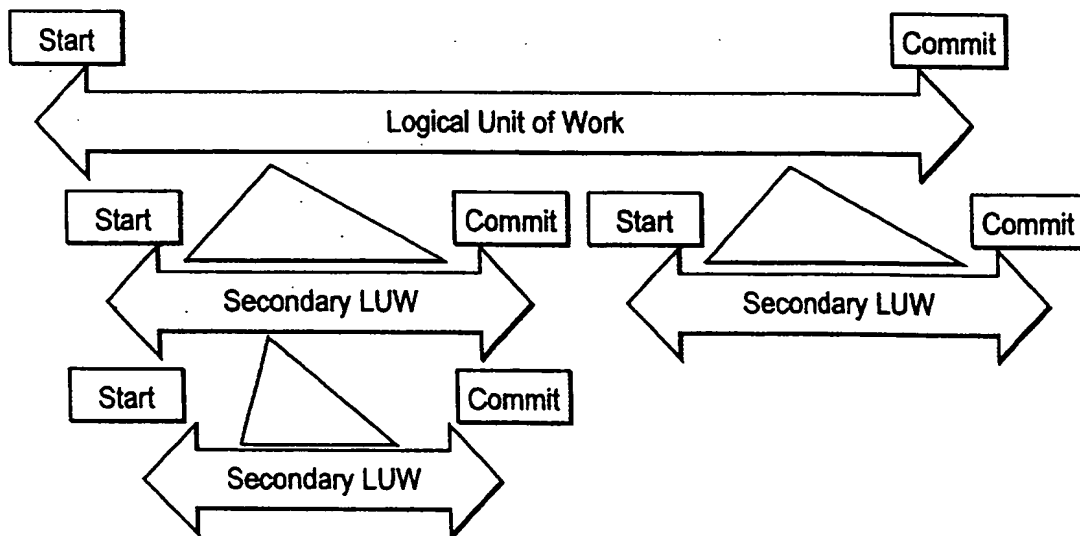
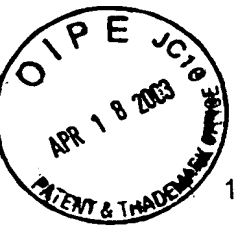


Fig. 178



17900

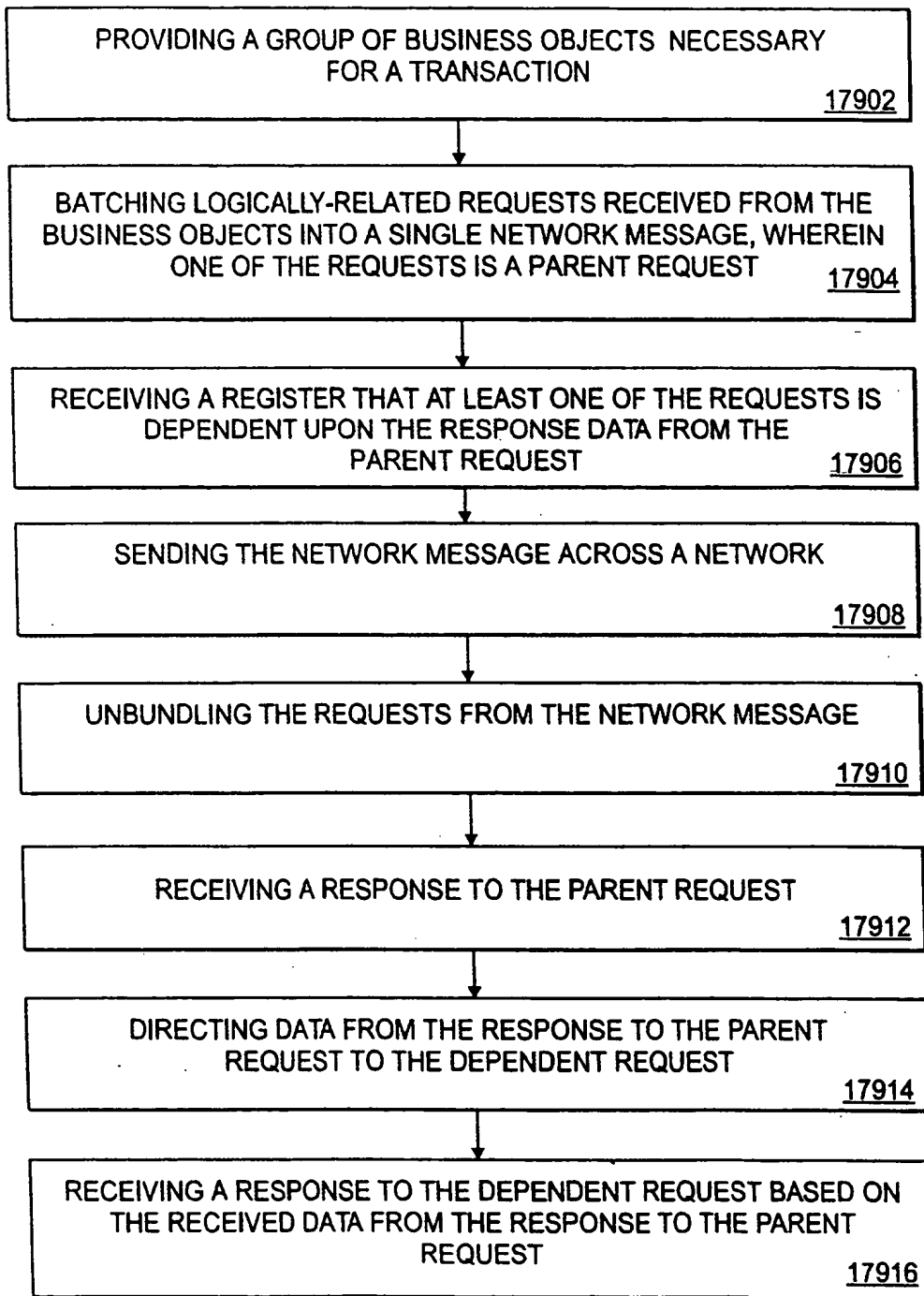


Fig. 179

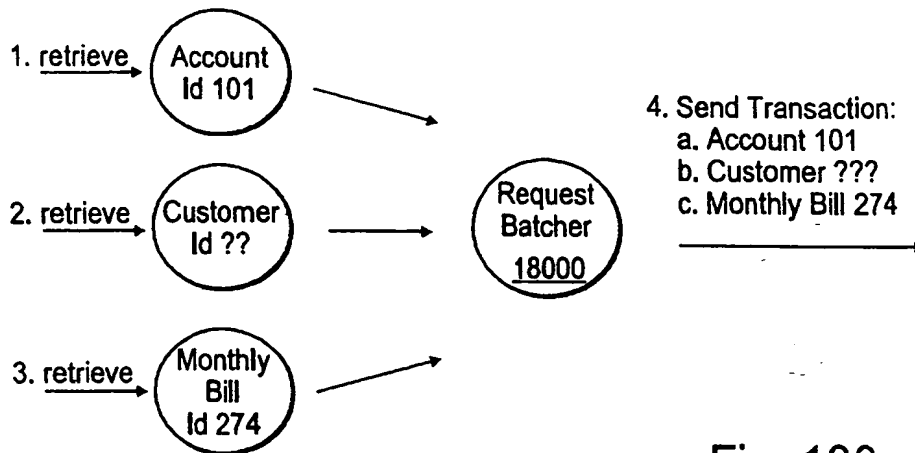


Fig. 180

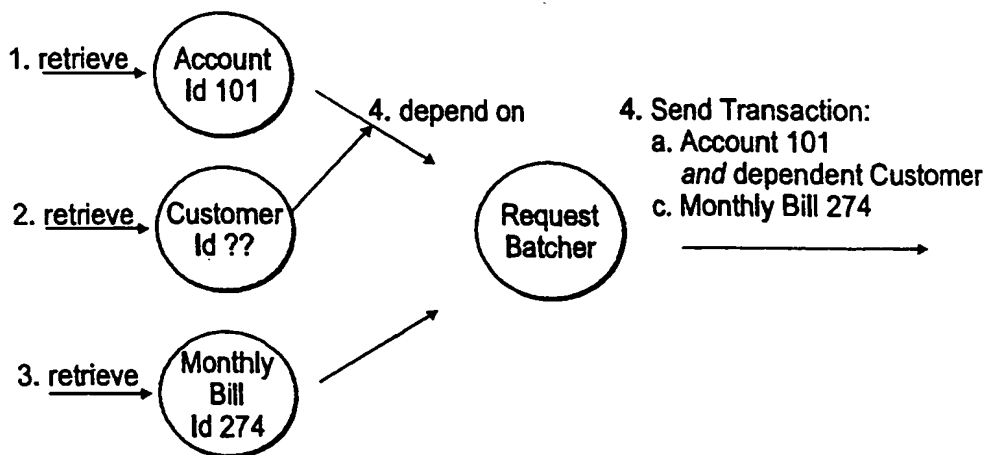


Fig. 181



18200

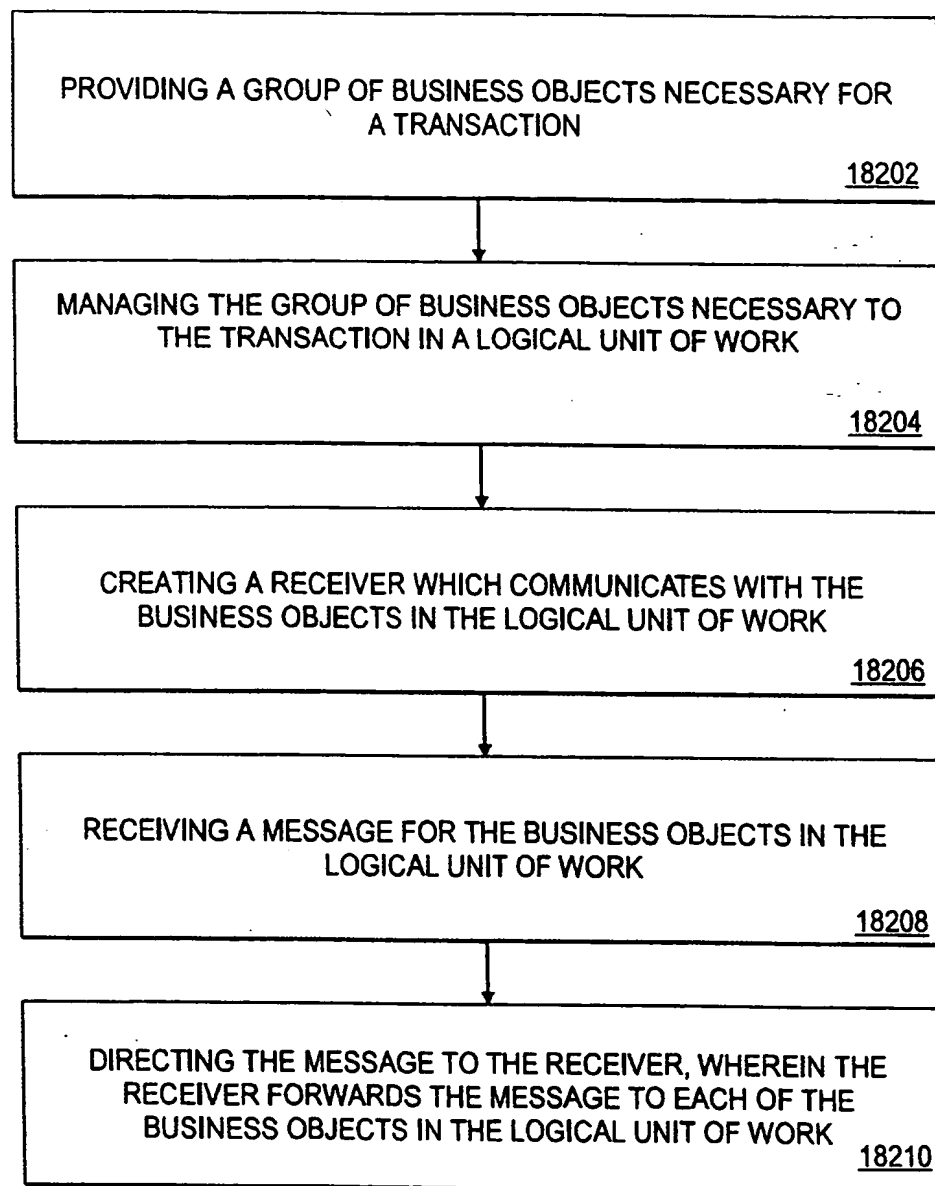


Fig. 182

Account Payment	
Account ID	101
Customer ID	ABCD
Service Charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<input checked="" type="radio"/> Credit Card #	3892
<input type="radio"/> Check #	
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>

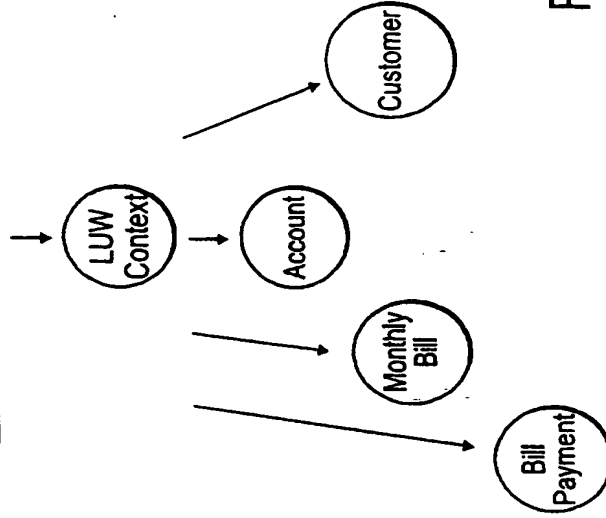


Fig. 184

Account Payment	
Account ID	101
Customer ID	ABCD
Service Charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<input checked="" type="radio"/> Credit Card #	3892
<input type="radio"/> Check #	
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>

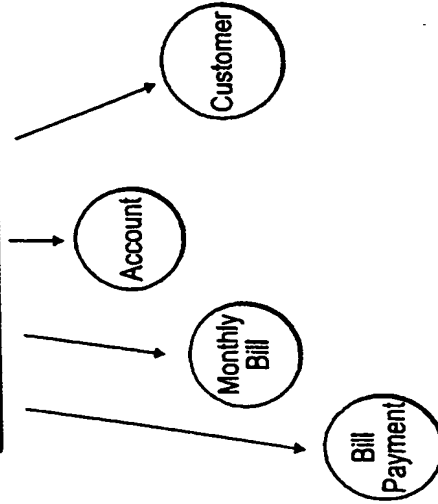
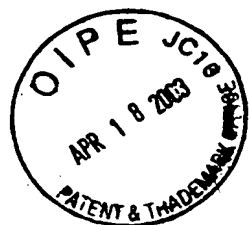


Fig. 183



18500

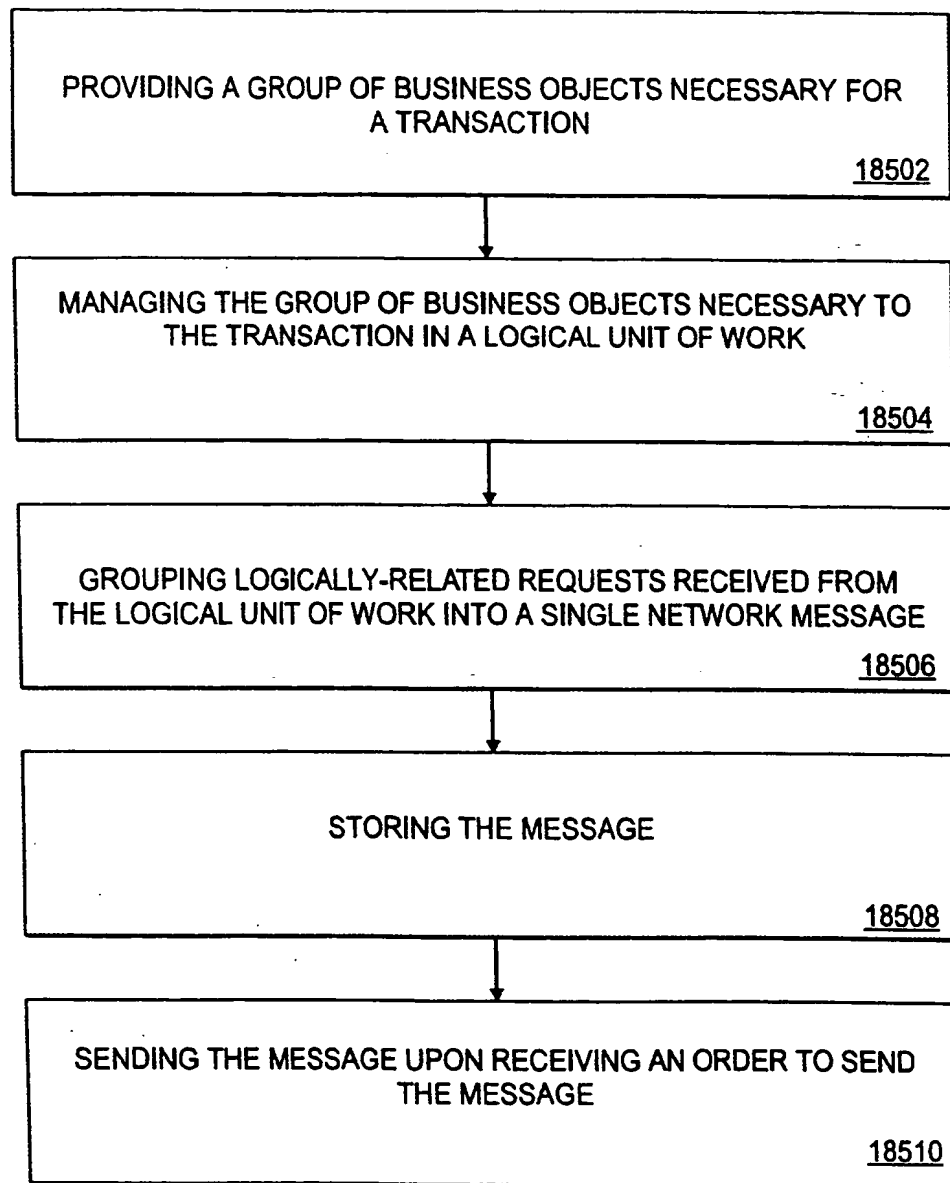


Fig. 185

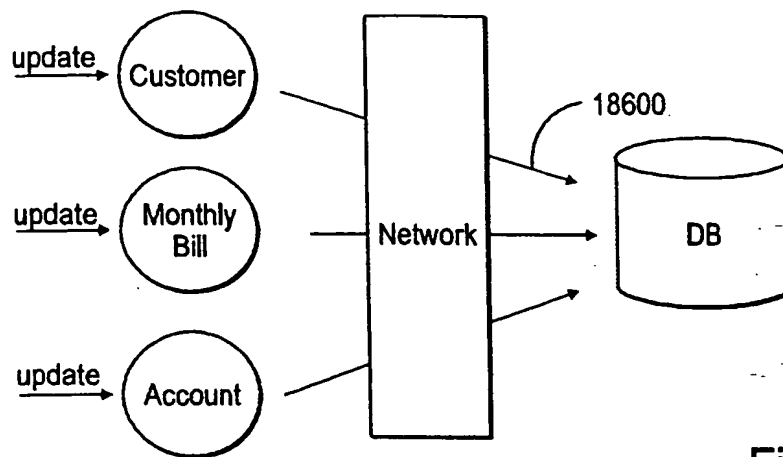
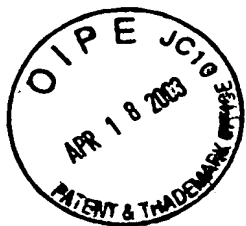


Fig. 186

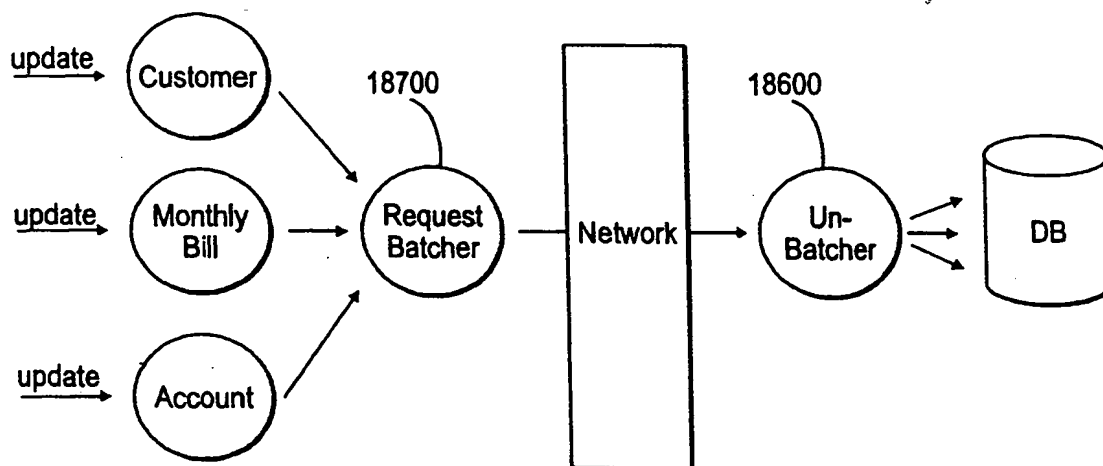
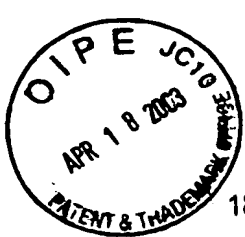


Fig. 187



18800

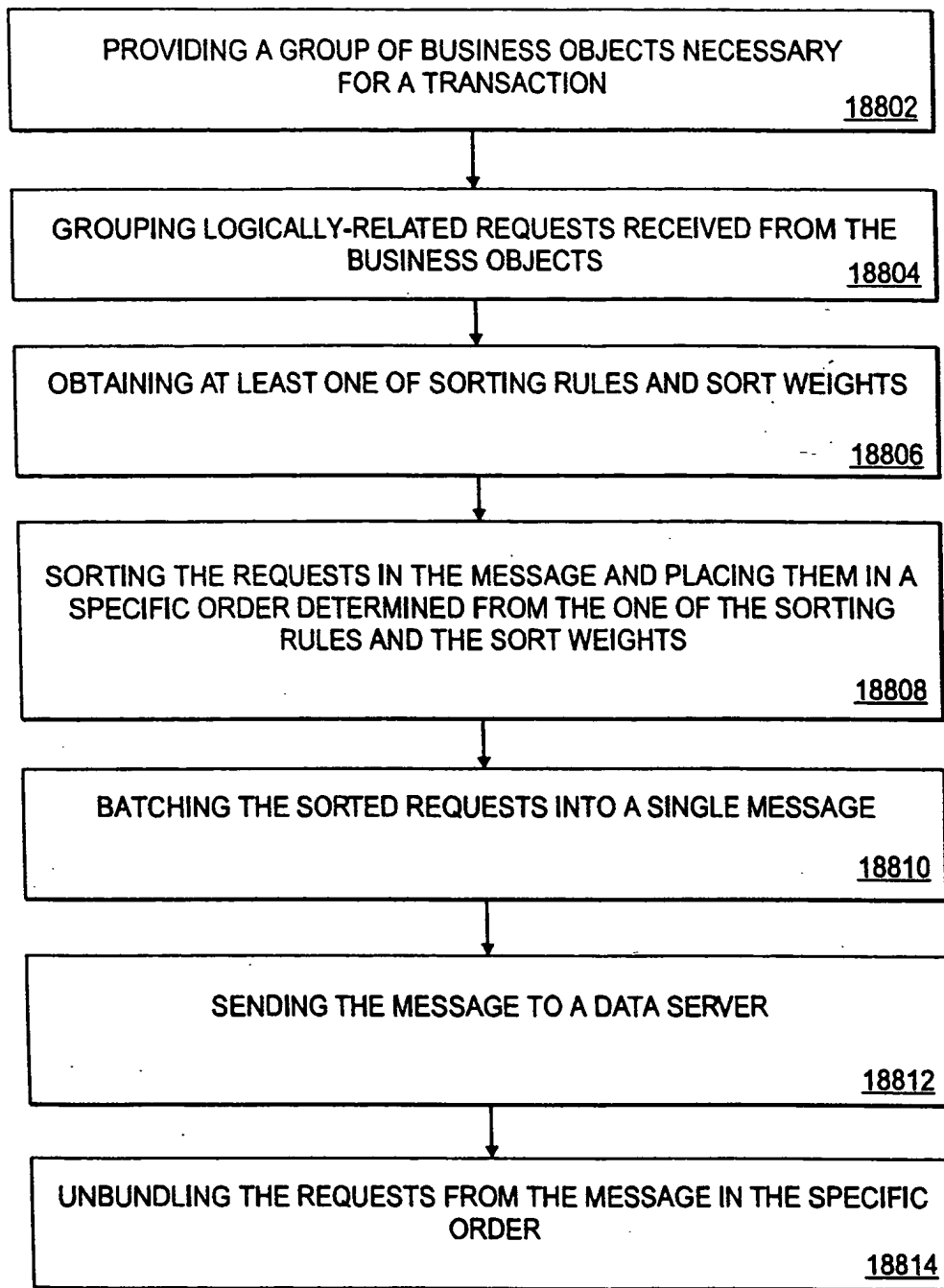


Fig. 188

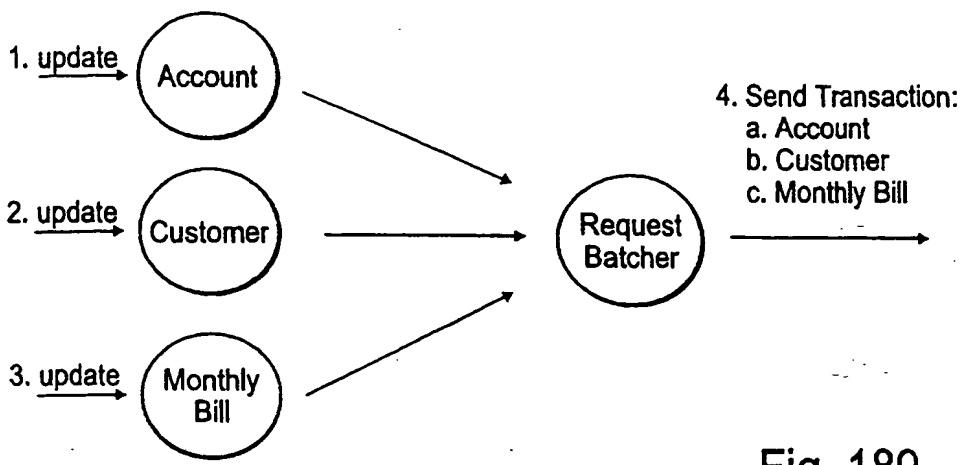
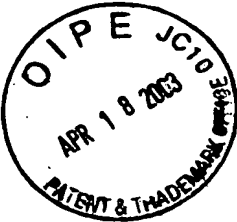


Fig. 189

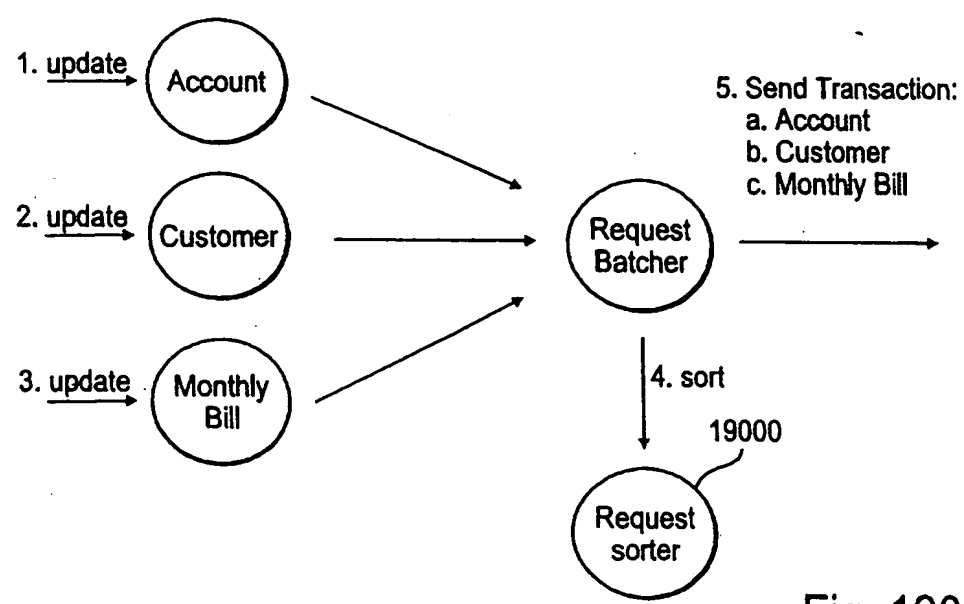


Fig. 190



19100

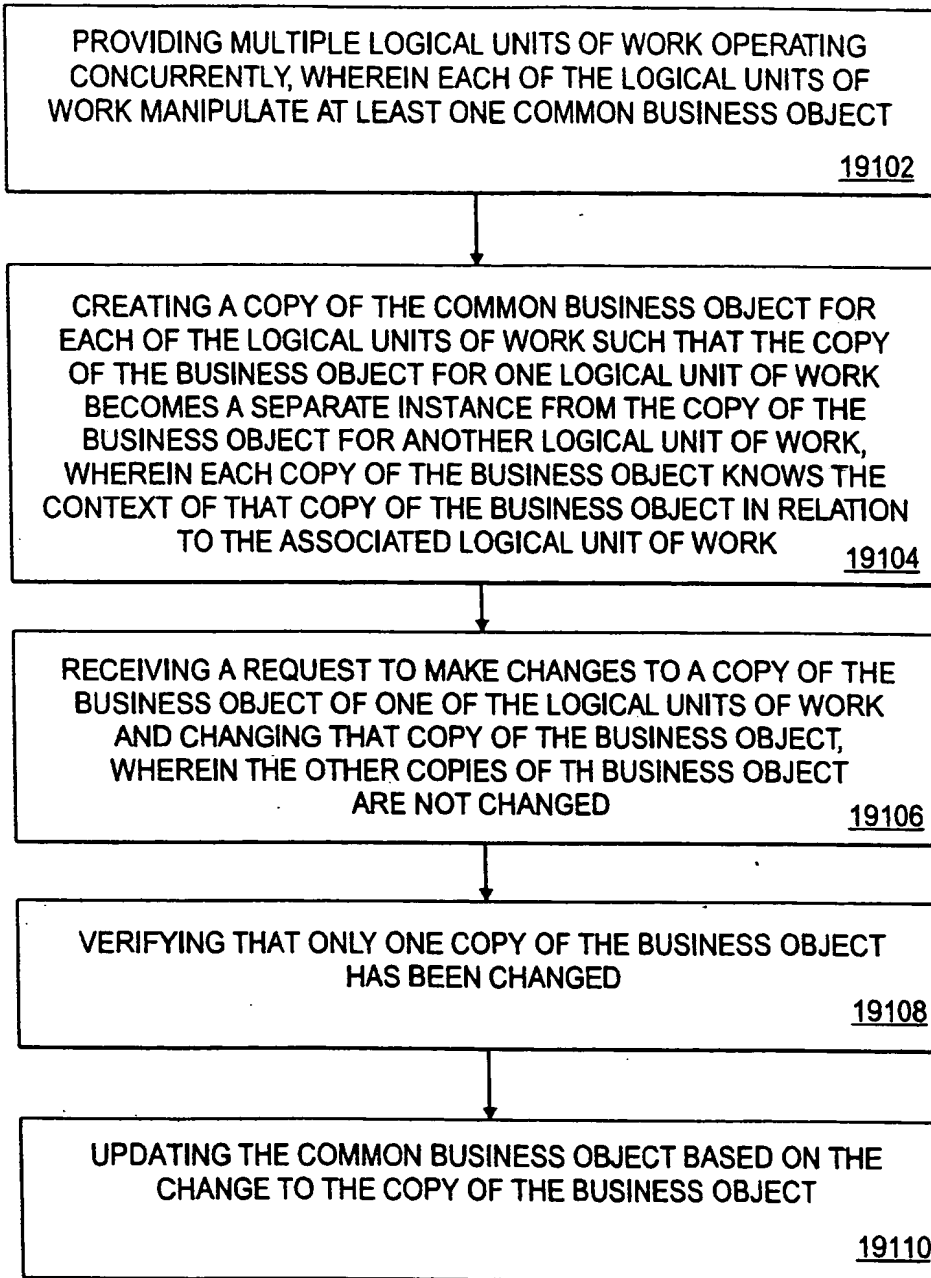


Fig. 191

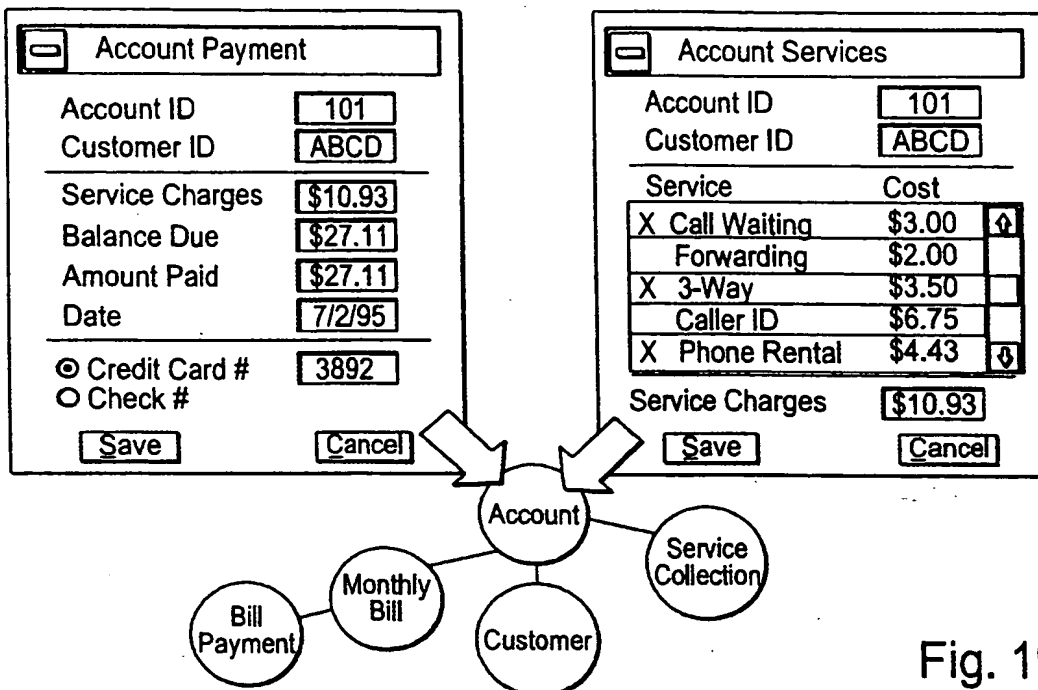


Fig. 192

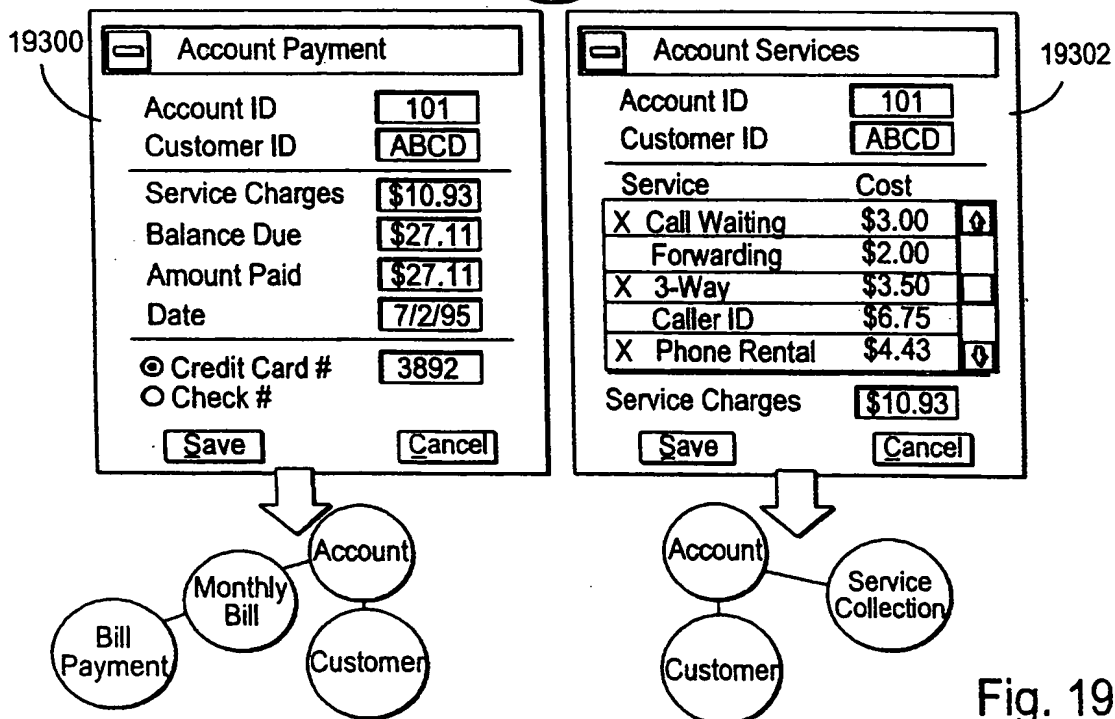


Fig. 193

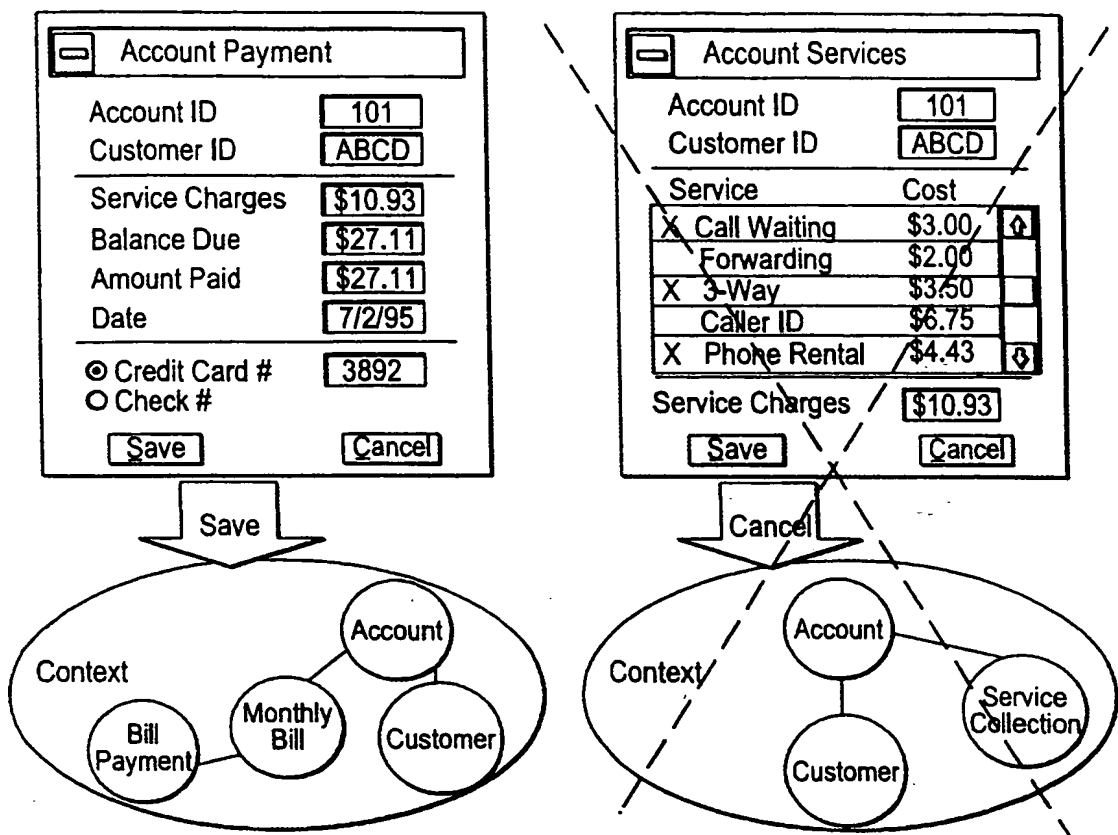


Fig. 194

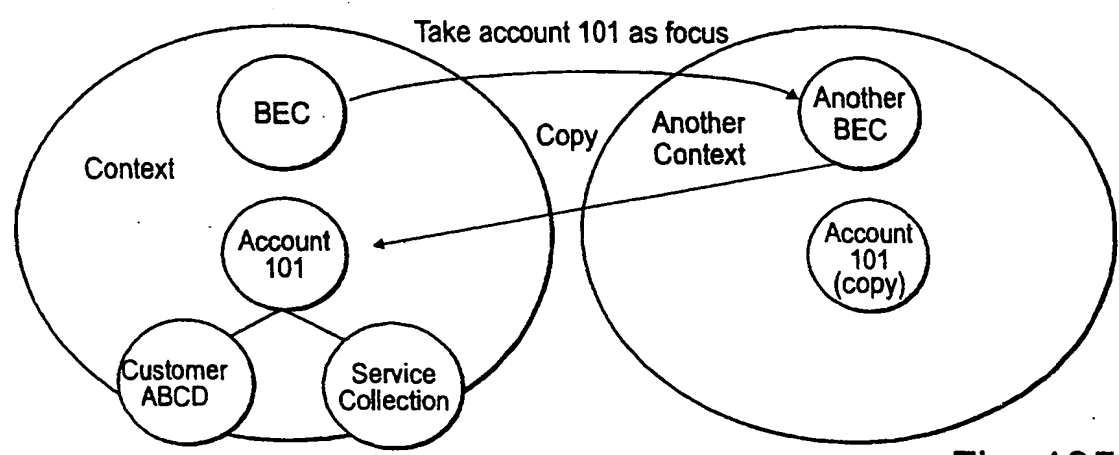


Fig. 195